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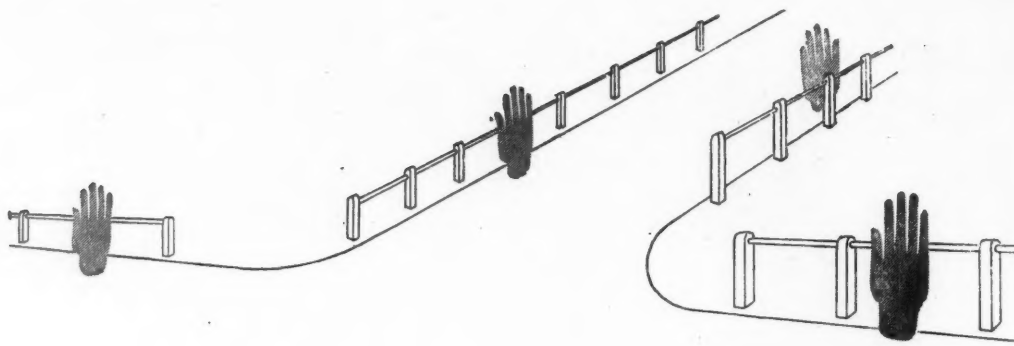
# THE ARCHITECTURAL REVIEW

FEBRUARY 1945

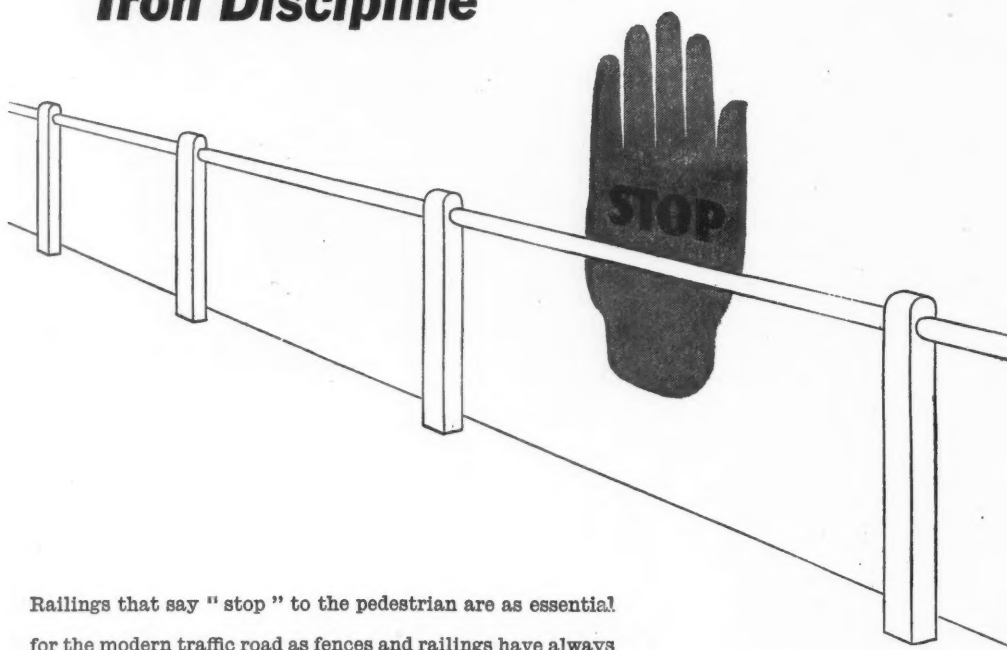
Barbara Jones

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## ***Iron Discipline***



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# *The Architectural Review*

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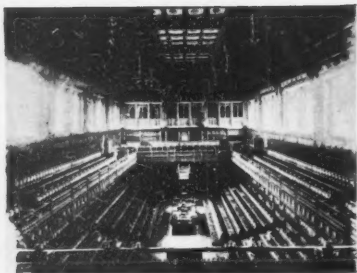
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THREE SHILLINGS AND SIXPENCE

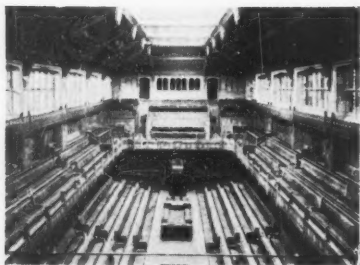
**THE COVER.** This paraphrase of the thrills—pleasurable as well as nightmarish—of the fun fair was drawn by Barbara Jones, one of the two authors of this month's central article. It is devoted to roundabouts. Never before have they been treated in so much detail—æsthetically, technically and historically. As one of the chief survivals of the Baroque in our century and as one of the best examples of folk-art in this country they are of very special interest to THE ARCHITECTURAL REVIEW.







*The smoking ruins of the House of Commons, drawn by Frederick Mackenzie after the fire of 1834. (Cambridge University Library.) The round-headed windows are by Wren, the cusped openings and the turrets above, by Wyatt. The view is looking east. The small picture above, the House of Commons as rebuilt and in existence until the present war.*



*The bombed House of Commons after the Blitz of 1941. The small picture above shows the model of the proposed new House, designed by Sir Giles Gilbert Scott, R.A.*







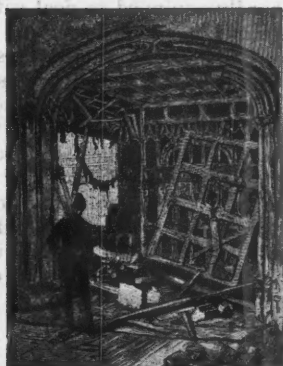
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# The Traditional Seating in the House of Commons

Once again the Commons lie in ruins and once again they are to be rebuilt. Sir Giles Gilbert Scott was charged by the Select Committee with the preparation of the plans like Frederick Mackenzie and Barry before him. The Prime Minister expressed the wish that the new House should keep to the dimensions and the traditional arrangement of the old. The author of this article shows how the House came to sit as it does to-day, how through a curious chain of circumstances a specific form of arrangement was arrived at, which survived through troubled years of political evolution and withstood assault by fire and bombs. Once again we shall see that form of seating installed which has come to be an important symbol—and perhaps even more than that—of the English parliamentary system, and has helped to strengthen the structure of the two-party system. It is all the more curious to see how it evolved, by an arbitrary move of the Commons from their octagonal hall into the Royal Chapel of St. Stephen with its ecclesiastical arrangement, and how the famous lobby resulted from a chance decision of Edward III to make the Chapel collegiate.



In January, 1885, the House of Commons was damaged by a dynamite explosion. The pictures above show The Illustrated London News artist sketching the damage from Mr. Gladstone's seat. Also effects of the explosion in the Division Lobby of the House of Commons. (From The Illustrated London News, January 31st, 1885).

"LET me see," said Mr. Pecksniff, searching among the papers. . . . "Suppose you were to give me your idea of a monument to a Lord Mayor of London; or a tomb of a sheriff; or your notion of a cow-house to be erected in a nobleman's park. Do you know now," said Mr. Pecksniff, folding his hands and looking at his young relation with an air of pensive interest, "that I should very much like to see your notion of a cow-house."

When it comes to rebuilding the House of Commons, Mr. Pecksniff's attitude is, as the Irish clergyman said of the Deity's relations with Israel, "abundantly right."

We can do little more than say to each other, "I should like to see your notion of a House of Commons."

The reason for this state of affairs lies in the character of this body, and its development in English History. It could equally well function in the octagonal Chapter House of Westminster Abbey, or the Hall of the Blackfriars, where it met as late as the reign of Henry VIII. Where the King has his Palace; the Bishop his Cathedral; the Monk his Cloister and Minster; the Lord Mayor his Guildhall; the Commons of England have a name but no habitation.

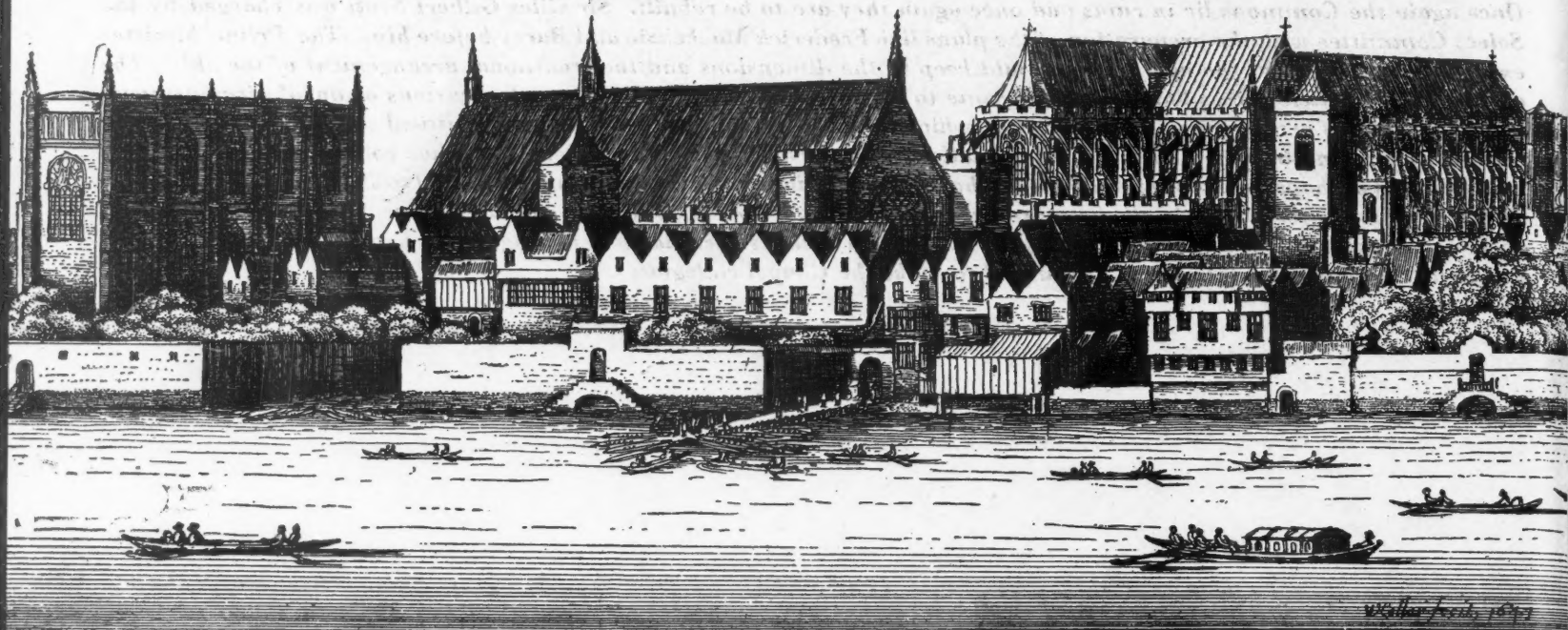
Barry's masterpiece is no contradiction. This was erected between 1840 and 1867. That is to say, in terms of the Commons' long memory, only the other day. Moreover, Barry and Pugin worked on a theme, which was set them, namely the Abbey. In proper mediæval parlance, the Houses of Parliament were to be "like" Henry VII's Chapel. Nothing, historically speaking, could be more "correct." Westminster is nothing more than the King's Court on the margin of the Thames, and the great Minster hard by. The tradesmen of the one and the masons of the other produce, in the course of centuries, the City of Westminster. The Palace is swept away, by the fire of 1834, but the Abbey remains. Henry VII's chapel was some three centuries before Barry, in its turn, new, and "like" the Abbey. This may be the reason why both have become part of England.

As the King gradually ceased his weary journeyings from manor to manor, meeting enraged noblemen on their own soil, his Parliament, when summoned, found it necessary to go to Westminster. The Lords

Parliament House

the Hall

the Abby



were housed in one of the numerous halls of the Palace; the Commons usually met in the Abbey Chapter House. This passage in their history is worthy of note. It does not seem exaggerated to suggest that if they had stayed in an octagonal building from the fourteenth to the twentieth century we should have seen the rise of eight political parties, instead of two, and it defies imagination to conceive what would have been the result. Persons of a like way of thinking have a tendency to sit together. Thus the extreme revolutionaries gathered in the "Mountain," the gallery of the French Convention. We know what we mean by the Boxes, or the Pit of the eighteenth-century theatre, "the Groundlings" of the Elizabethan stage, or "the Gods" of the nineteenth century. As the Prime Minister has said, "We shape our buildings, and afterwards our buildings shape us." The terms, Left, Right, Centre, etc., are a commonplace of politics.

But in the case of the House of Commons, mere chance dictated that this body was to leave its octagonal resort and find a more or less permanent home in another part of the Palace of Westminster. The Reformation and the Dissolution of the Monasteries left available—if the matter may be so expressed—an otherwise useless building, to wit the Royal and Collegiate Chapel of St. Stephen, in the Palace of Westminster. About 1547-8 the Commons seem to have taken possession of this, perhaps the most magnificent work of the art of architecture ever produced in England. All beholders, from two Bohemians in the fourteenth century, to Lethaby in the twentieth, have endeavoured to express their feelings of awe and wonder when confronted with this supreme masterpiece. Nobody has quite succeeded. John Carter frankly admits, "Had I the eternal-catching comprehension of the inspired Milton, I could but faintly tell the wonders of this place." Lethaby calls it, "the crest of the Gothic movement in England." J. T. Smith compares it with Santa Sophia, to the detriment of the latter.

A curious thing now happens. The Chapel enters on a hidden existence for 300 years, and at the end of this time the House of Commons, as we know it to-day, emerges.

About the exterior of the building much can be ascertained. Luckily van den Wyngaerde drew it in about 1558. The importance of his drawing is that it shows us both the old and the new. It is the original St. Stephen's Chapel, but it is also the new "Parliament House." By the time Hollar drew, almost exactly a century later, much has been altered, and much has changed.

When we consider the interior, however, because of the ambiguous character of the building, being at once a royal chapel, and the House of Commons, we find that there are two questions to be answered. Considering the building as a chapel, we wish to know what its internal arrangements were. On this there is no direct pictorial evidence, for obvious reasons. It was not a place of public resort, being the private chapel of the King. When its interior is first represented it is the Commons' Chamber.

The second question is the one which must receive the greatest attention, when the rebuilding of the Commons' Chamber is undertaken. Why, in fact, does the House sit as it does? Its seating arrangements are not dictated by its character as a Legislative Assembly. Other such bodies sit in a very different manner, and to many, no doubt, there are good reasons for making changes. The seating of the Commons is not necessarily in the nature of things.

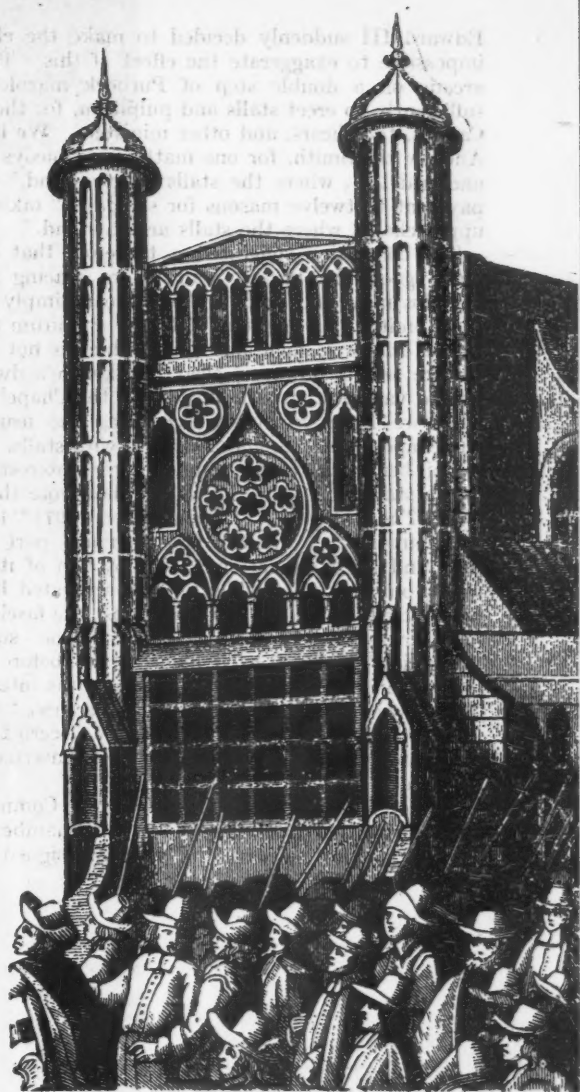
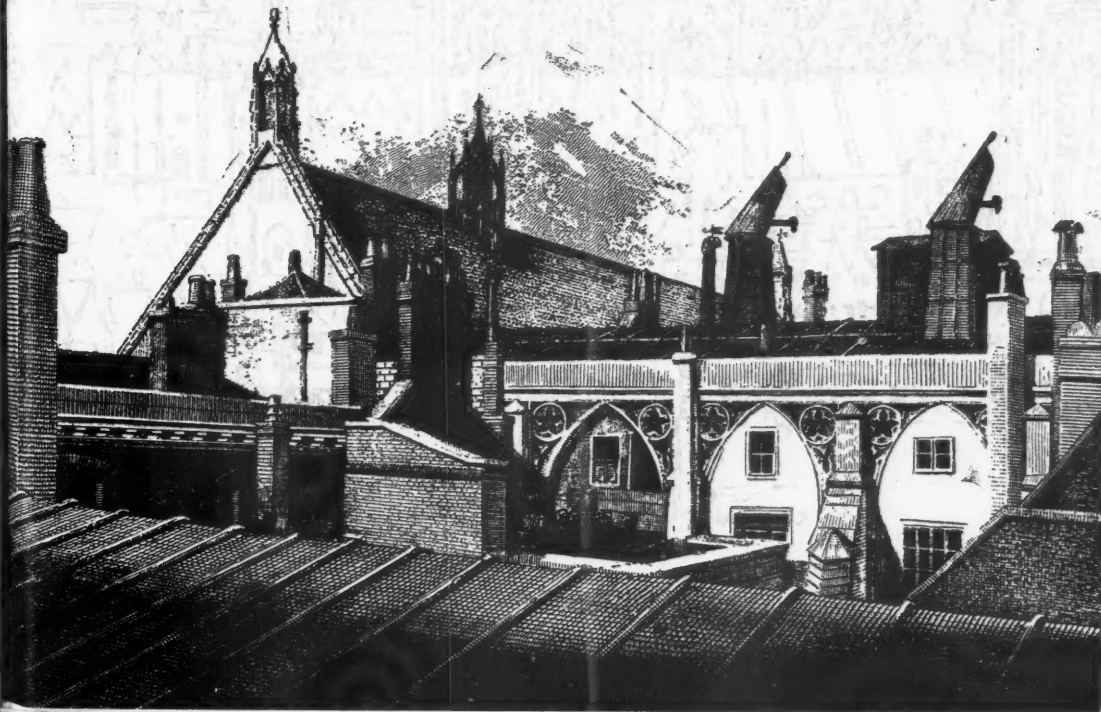
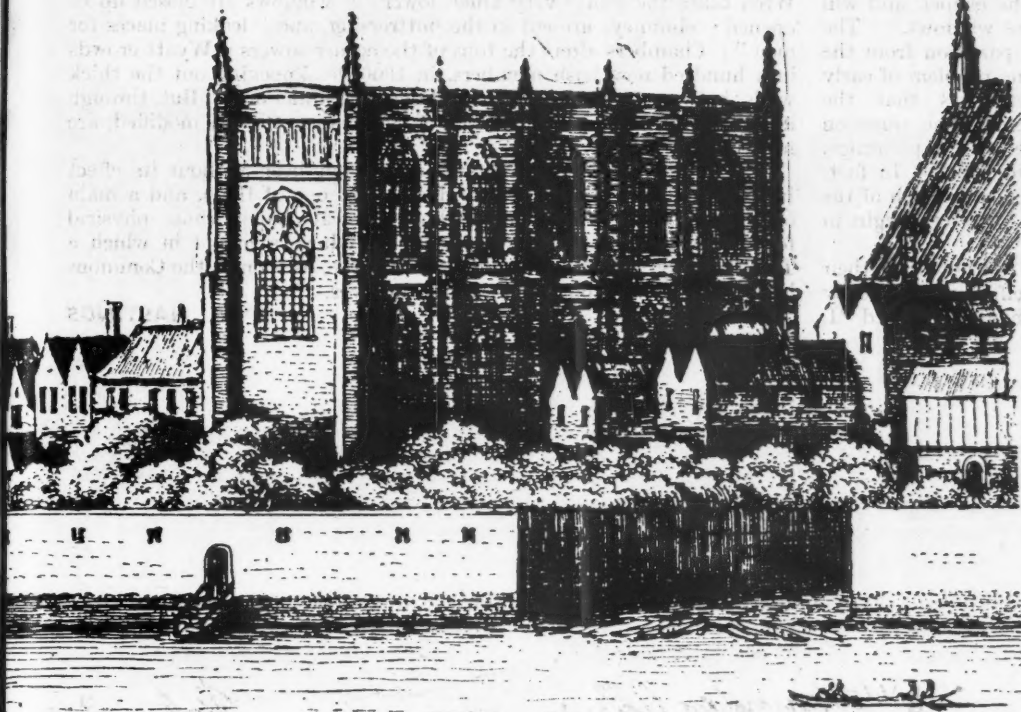
A red herring has been drawn across the track of enquiry by Frederic Mackenzie. When the House of Commons, otherwise St. Stephen's Chapel, was burnt down in 1834, this eminent draughtsman was commissioned by the Office of Woods and Works to reconstruct the building in all its pristine glory. The task was impossible, and Mackenzie was hardly equipped to deal with the accounts of the work of building the chapel.

It must suffice to say here that he presumed an isolated Choir, in the chapel, the Stalls being placed against a "dwarf wall of chalk." This gives an interior to the chapel somewhat out of the ordinary. The matter appears to have been let pass. Even so great an authority as the late Sir W. St. John Hope seems to have been taken in, while the late Profs. Lethaby and E. S. Prior appear to have swallowed Mackenzie at one gulp. A vague impression has remained to this day that the interior of St. Stephen's was peculiar. The late H. S. Brewer drew a very glorified version of the Mackenzie interior, and one which might be unfortunately revived in present circumstances.

The point cannot be dismissed in a word. We know that St. Stephen's had stalls and a Pulpitum because Henry VI "willed" that the stalls and pulpitum of Eton College should be like those of St. Stephen's. The accounts record the purchase of three boatloads of chalk, "for the repair of the wall behind the stalls"; "for repairing le Reredos for the placing of the stalls"; "for Reredos on the outside of the stalls." Light is thrown when we put together the two facts that the building was complete, that is to say the roof was on in 1346, and that in 1348,



## Parliament House



On the facing page Hollar's drawing of Parliament House, Westminster Hall, and the Abbey, about 1645. (Bodleian Library); top left, a detail view of Parliament House from the same drawing. On the right, a cut, published by J. T. Smith, from Nelson's Impartial Collections. (Cambridge University Library.) In the original, light streams from the cinquefoils of the Rose window on to a ship in the Thames, where sailors are throwing a crowned personage overboard. The whole is allegorical, and supposed to represent the destruction of Charles I by "Plebeian Stars"—meaning the Commons. On the left, drawing from Smith's Antiquities of Westminster. (Cambridge University Library.) Almost one of the last views of the ancient Palace. William Rufus' "bedchamber" dominates the scene. The Sergeants at Law are walking about inside. In the Painted Chamber, in the foreground, Edward the Confessor died. On the left, in the new House of Lords (since 1800), the Court of Requests, formerly the White Hall or the Little Hall. In front is the House of Commons, after Wyatt had finished with it. We look into Mr. Bellamy's windows. This was published on January 1st, 1806. Trafalgar has just stopped invasion. Europe lies at the feet of Napoleon. Ulm and Austerlitz are killing Pitt, who will die before the month is out. Within a few days or hours, Fox, under the last chimney pot on the right, will say: "Sunt lacrimae rerum et mentem mortalia tangunt."

On the following page, part of van de Wyngaerde's drawing of London, 1558. (Bodleian Library.) Showing, in the left foreground, St. Stephen's Chapel, later Parliament House.

Edward III suddenly decided to make the chapel Collegiate. It is impossible to exaggerate the effect of this. The most elaborate wall arcade on a double step of Purbeck marble had to be destroyed sufficiently to erect stalls and pulpitum, for the use of a Dean, twelve Canons, the Vicars, and other ministers. We find the entry, "Master Andrew the Smith, for one mattoe and picoys to take down the wall and seat . . . where the stalls are to stand," and a further entry of payment to twelve masons for six days "taking down the wall in the upper chapel where the stalls are to stand."

The conclusion suggested is therefore that the chalk was used to make good the broken wall before placing the stalls. The word Reredos may, and probably does mean simply "behind," as taken by J. T. Smith. It might refer to the Pulpitum (v. O.E.D. s.v.2), which is not otherwise mentioned, and which is not a builders' term. The picture seems, however, clear, Mackenzie's dwarf wall with passages behind vanishes, and the interior of the Chapel would appear to follow what we have grown to regard as the usual College pattern, an antechapel, a screen, and a chancel with stalls.

This being granted, we come on a very interesting piece of information. Smith states (or rather Hawkins who wrote the letterpress of Smith's work, *The Antiquities of Westminster*, 1807): "the lobby (of the House of Commons) . . . was in fact originally part of the chapel, and will be found on examination to occupy two of its five windows." The words omitted are "which is now separated by a partition from the house itself." We are now up against the fascinating problem of early nineteenth-century antiquarianism. The suggestion is that the "partition" did not exist before. But before when? This question did not arise for Hawkins, and Smith was interested in the paintings. The answer should be, we must conjecture, "Before 1848." In fact, in the "partition" we may reasonably discern the exact location of the pulpitum, which, as we have seen, was inserted as an afterthought in an already finished building.

It therefore appears to follow that the Commons did not bring their Lobby with them, but that it, and the Chamber itself, were created by the ecclesiastical nature of the building assigned to them by Edward VI.

When therefore we regard the modern House of Commons seated in Barry's Chamber, we see dimly and spectrally presented to our eyes the form and features of the original interior of St. Stephen's Chapel. The Members sit "Decani" and "Cantoris," because they found choir stalls in the original building. The words are changed to "Government" and "Opposition," but we are still governed antiphonally. Even the return stalls seem to be there, though now renamed "Crossbenches." The Speaker sits on, or in front of, the Altar. The Bar of the House and the Bar Lobby still mark the site of the ancient pulpitum, while the Commons House Lobby still preserves the memory of those two bays at the west end of the Chapel which were cut off by Edward III's belated decision to found a College.

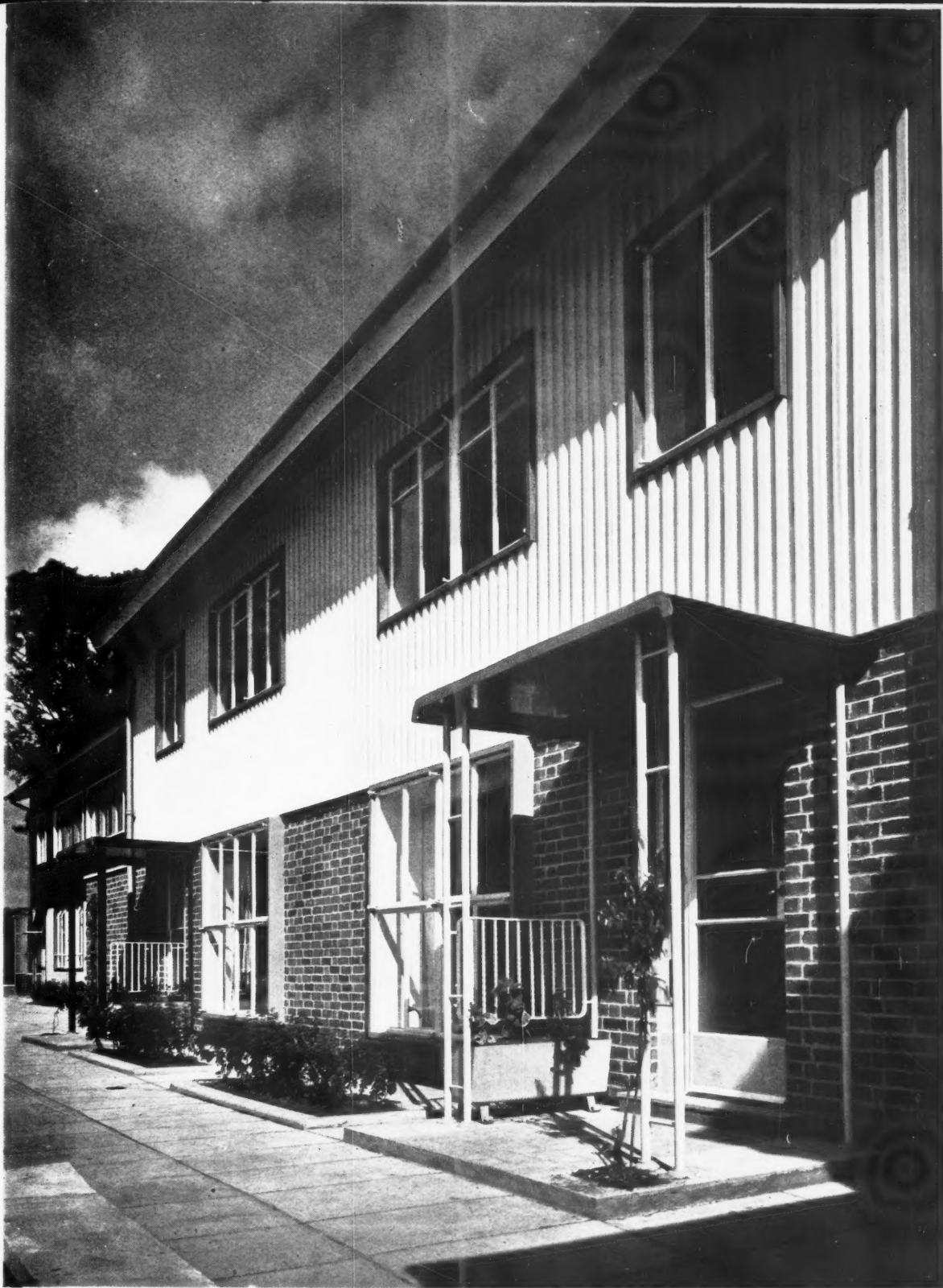
The atmosphere and character of the House appear to have persisted almost unchanged. In St. Stephen's itself the Chamber was no more than 50 ft. by 26 ft. Every criticism offered to-day is but an echo nearly 400 years old. The House's very nature seems to consist in the almost domestic intimacy produced by an unsuitable building, cramped space, poor light, draughts, stuffiness, the ceiling falling down and imminent danger of fire—and here it is noteworthy that such alterations as are made during the Commons' occupation are only directed towards abolishing dangers and discomforts. Wainscoting is introduced; Wren takes the roof "very much lower"; windows are closed up or opened; chimneys are cut in the buttressing, and "leaking places for men"; Chambers alters the tops of the corner towers; Wyatt crowds in a hundred new Irish members, in 1800, by knocking out the thick walls, between the buttresses, and building thinner ones. But, through it all, the essential characteristics of the chapel, though modified, are not altered.

The English Parliamentary system has not been without its effect in the world. Its roots lie very deep. But one of them, and a main one, seems to be a specific building, a royal chapel whose physical features appear to create a mode of procedure, a mould in which a Two-Party system seems bound to take shape, as soon as the Commons become powerful enough to assert themselves.

J. M. HASTINGS



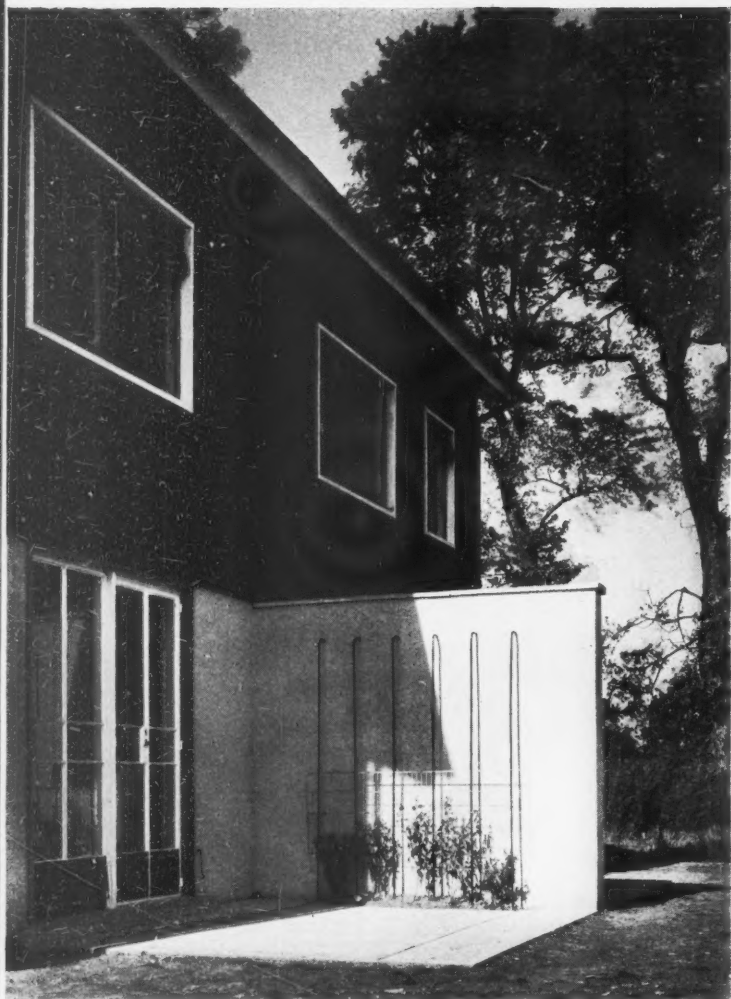




2

# STEEL HOUSES AT NORTHOLT

FREDERICK GIBBERD Architect  
DONOVAN H. LEE Consulting Engineer



Exterior views of the two experimental steel frame houses at Northolt, of the British Iron and Steel Federation. Of identical plan they differ in the design of their structural framework and the facing materials have been varied to show more than one possibility of outside treatment. **1** and **2** on previous page show a close-up street view of the type A house, brickfaced up to first floor level, and vertically corrugated steel sheets painted white above, with type B in the background, and a garden view of type B. **3** shows a close-up view of the garden side of type B, with its base of rough cement rendering on steel sheets, and horizontally corrugated steel sheets above, painted a bright red. **4**, another street view of the two houses. **5**, a street view of type B.



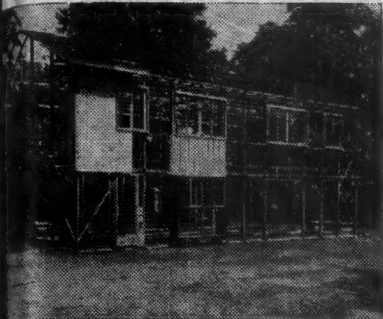




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## THE PROGRAMME

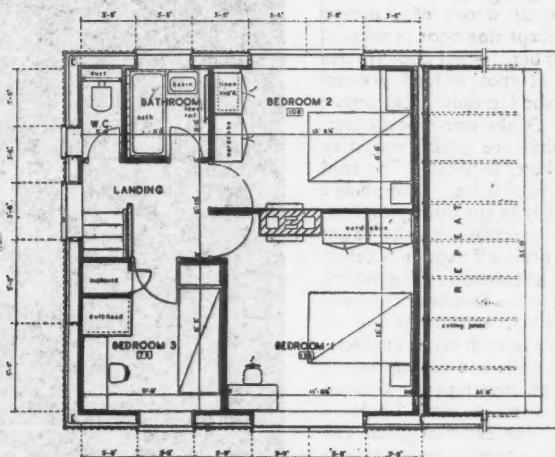
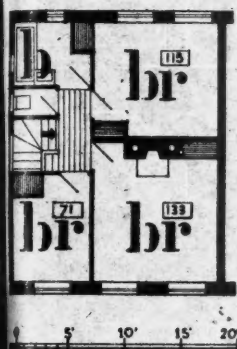
The two houses of the British Iron and Steel Federation were built as part of the Ministry of Works demonstration scheme at the Northolt Grange Estate, which is to show alternative building types suitable for after the war permanent housing. One of the brick houses built by the Ministry was declared the yardstick, by which the relative cost and performance could be measured. It has a floor area of 850 sq. ft. The approximate net cost was £759, based on the number of 500 houses to be built on a site, exclusive of builders' profit and cost of land. The site man hours were about 2,100 per house.

## PLAN AND GENERAL CONCEPTION

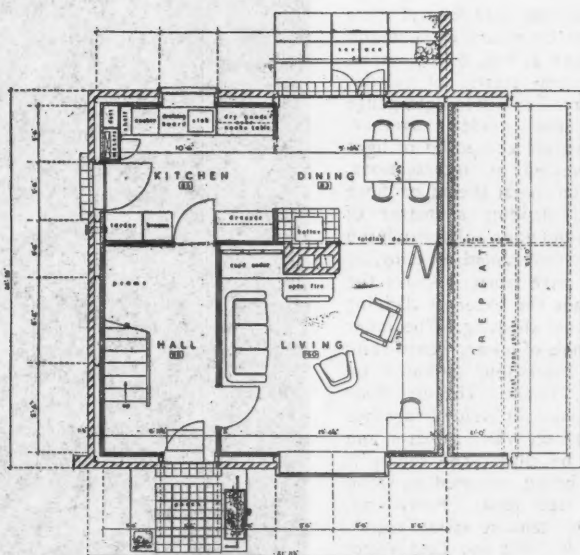
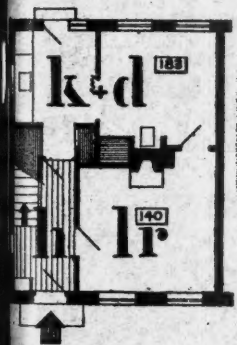
The pair of semi-detached houses of the B.I.S.F. are of identical plan with a slight variation in wall thickness and fenestration. They are frankly experimental in plan, structure, and material, a first step in the evolution of prototypes suitable for mass production. They are part of a research programme, the conclusions of which are built, providing the necessary test conditions for further work. This enlightened policy of research and experiment has been singularly successful. Though in essence an adaptation of the yardstick plan, these houses have succeeded in introducing within their limited space of the required 850 sq. ft. floor area, the sense of spatial freedom and flexibility which distinguishes contemporary work at its best. Every use has been made of the degree of plan emancipation provided by the system of frame construction. The ground floor has been planned as openly as possible. Each living unit can be combined with each of the others, giving a variety of choice for the owner. The living-room can be kept apart from the dining-kitchen, to produce the parlour-type house effect, or, joined to each other, a through living-room is obtained, with a fireplace and a dining recess off it. The cooking part can be separated from the dining recess, if wanted, by a curtain, or door. The barrier wall between living-room and dining-kitchen

in the yardstick plan has here been eliminated by the simple introduction of folding doors. The plan thus revolves around the central flue stack which serves the coal fire in the living part and the hot water boiler in the dining-kitchen. The rooms are grouped around this central source of heat in the traditional manner of the English house. Aesthetically the importance of the central stack has been emphasized by treating it in materials different from the rest of the house. It is finished in rough plaster in the one house, in facing brick in the other. Strong texture and strong colour is concentrated at this point. The recessed wall in the hall is in a single flight, an obvious advantage to the inhabitants, but also dictated by the fact that winders and half landings are uneconomic in steel construction. Another essentially contemporary feature about the house is the way in which the breakdown of the usual box-like rooms has been carried further and applied to the outside walls. The walled-in effect of the normal fortress house has been overcome by joining the interior with the garden through french windows leading on to a small paved terrace, and visually to the street by the generous boxed-out window in the one house, and the glass front door and porch arrangement in both cases.

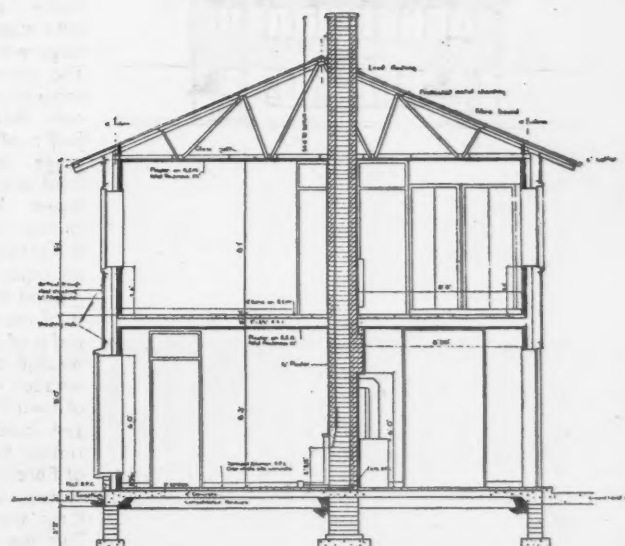
## YARDSTICK PLAN



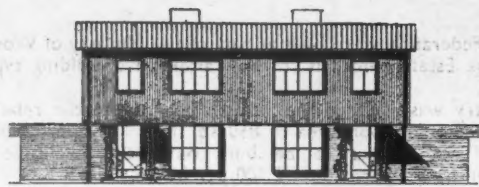
FIRST FLOOR PLAN



GROUND FLOOR PLAN



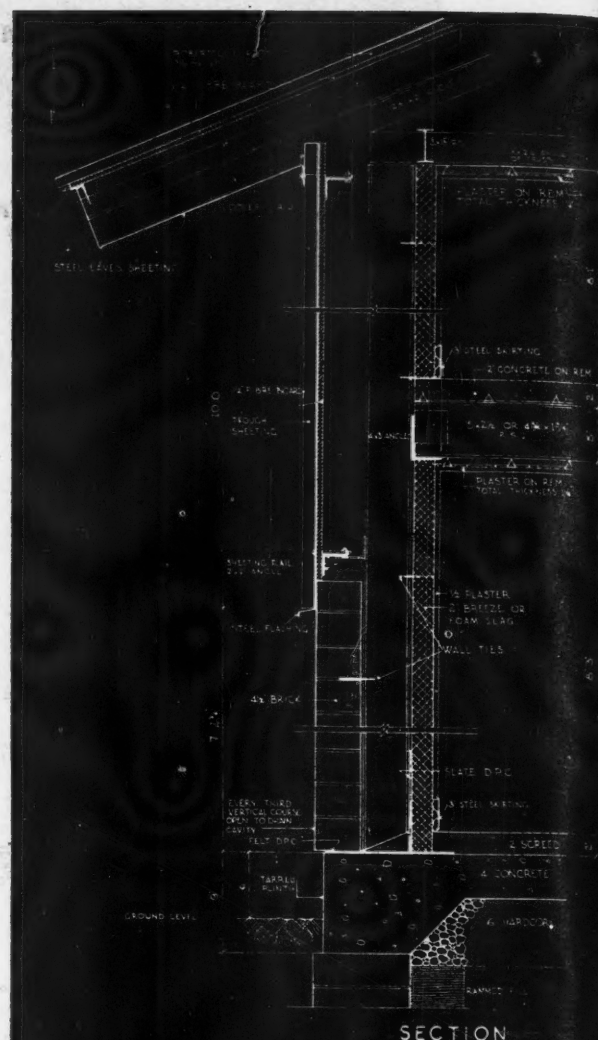
SECTION



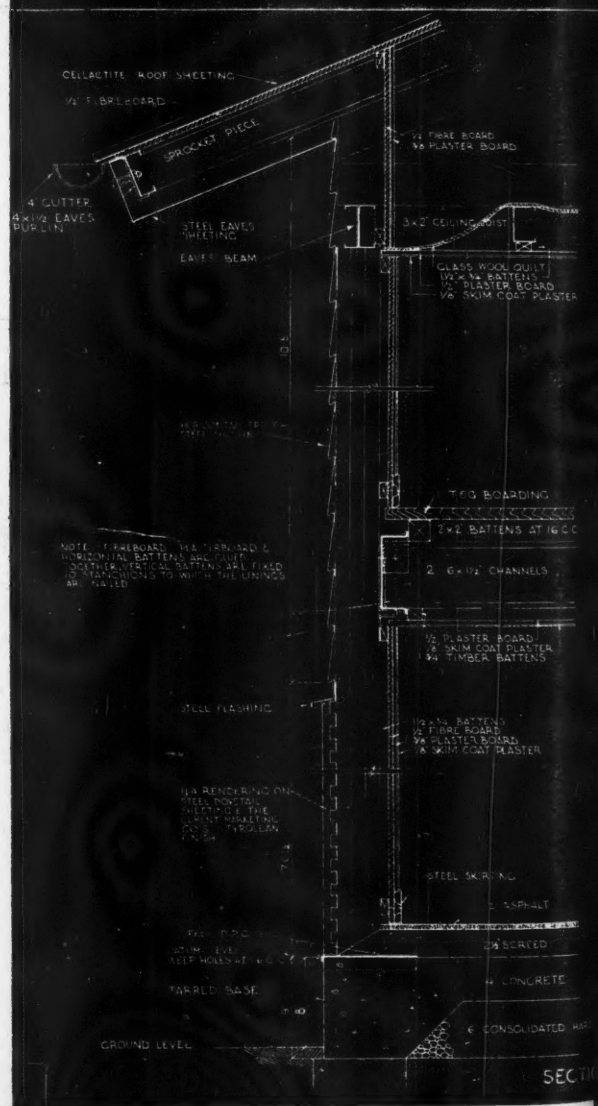
## MATERIALS AND STRUCTURE

### House Type A

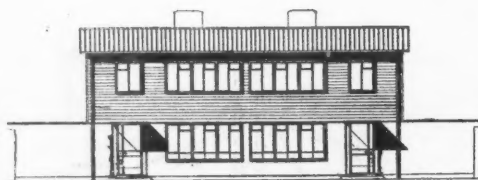
**Frame :** of light hot-rolled steel sections. Posts spaced generally on a 3 ft. 6 in. grid to take the standard metal window and its trim. In addition the structure has a centre trestle of tubular sections supporting the first floor rolled-steel beams. **Roof :** of steel trusses in rolled or tubular sections, which carry the steel ceiling joists. The covering is of protected metal sheets on fibre board insulation. **Walls :** The external cladding is left to choice. In this case 4½ in. facing brick is used up to the head of the ground floor window, above that level vertically ribbed steel sheeting backed with fibre board insulation. The inner wall leaf is of foamed slag or breeze concrete slabs, leaving a cavity for the structural steel work. **Partitions :** of foamed slag or breeze slabs. **Floors :** first floor of steel joists with expanded metal above and below, the floor finish of linoleum on 2 in. of in-situ concrete, the ceiling finished in plaster. The ground floor of 2 in. fine concrete on waterproof membrane supported by mass concrete on hardcore. The finish is coloured asphalt. **Party Wall :** of cavity type in breeze concrete block. Floor steel and trestle is discontinuous. **Flues :** in brick. **Windows :** standard metal sections secured in light gauge pressed steel subframes. **Doors :** external doors of standard steel casement sections, except side door in pressed steel, internal doors of timber. Steel door frames throughout. **Staircase :** of spot welded pressed steel construction with wood treads. **Skirtings :** of steel trim. **Plumbing :** Of the one-pipe system. The soil stack and branches are prefabricated in one unit. **Hot and Cold Water Services :** The cold water storage tank in the roof space. A combined hot water boiler and cylinder in the dining kitchen, from which the hot water circulates to the towel rail, linen cupboard and draw-off taps in kitchen and bathroom. **Electrical Installation :** The wiring is drawn into steel conduit in the first floor concrete and above first floor ceiling, and connected to points from the floor above in each case. **Finishes :** Two-coat plaster work to walls and ceilings which are finished with coloured distemper. Ground and first floors covered with 4 mm. linoleum applied direct to concrete. The external galvanized steel sheets are painted with a special rough texture "Stone" paint. Apart from the roof the remainder of the external steel finish is oil-bound paint.



SECTION



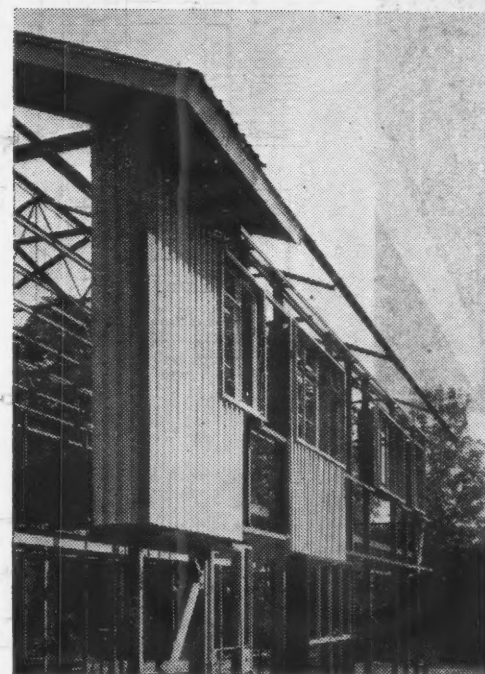
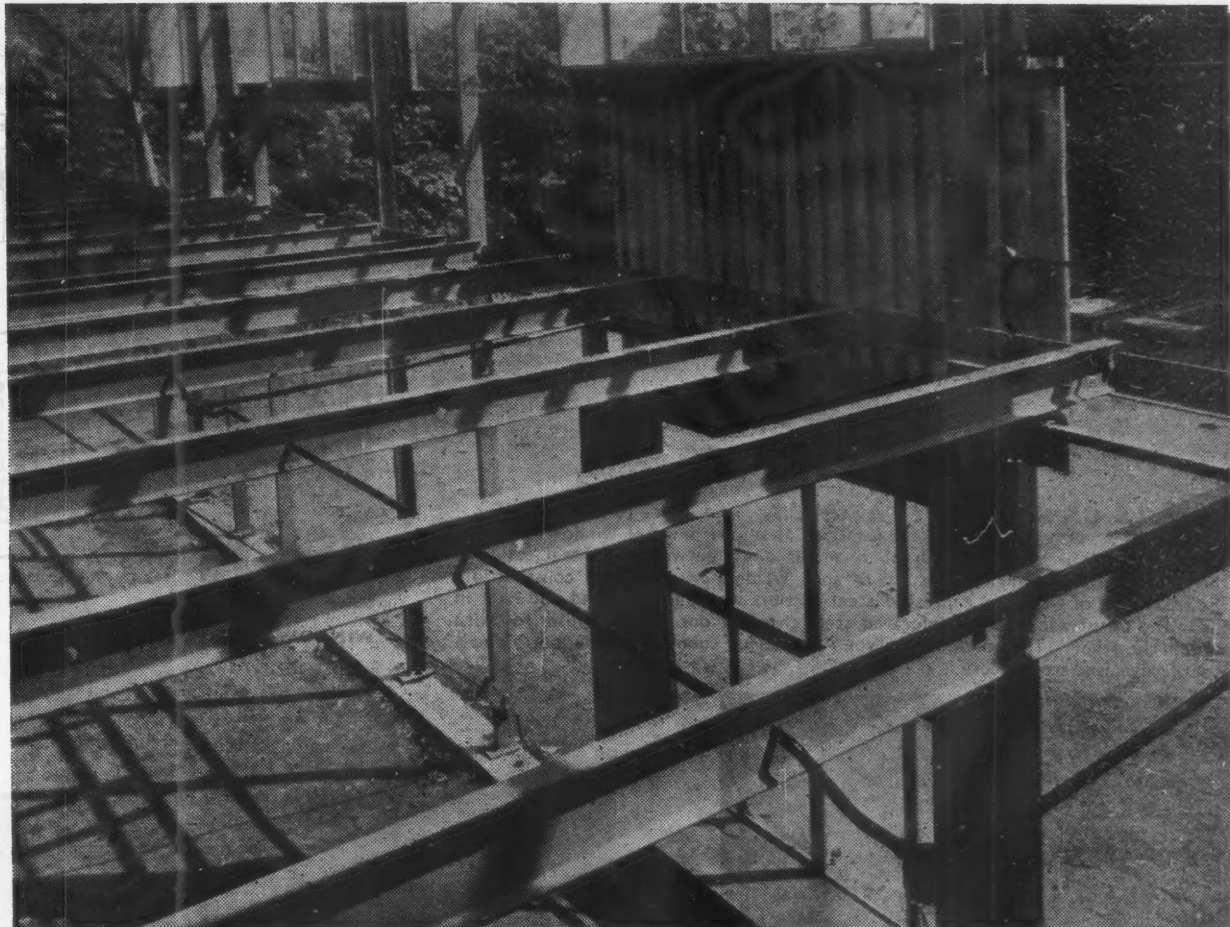
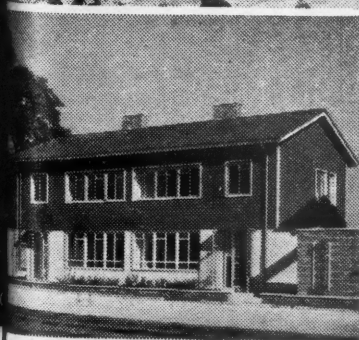
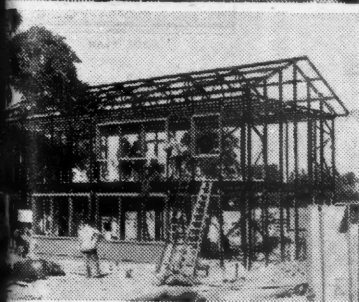
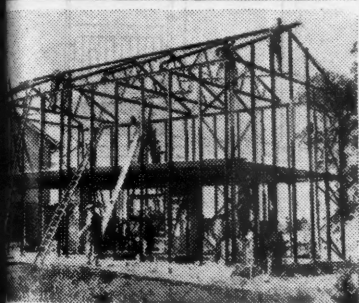
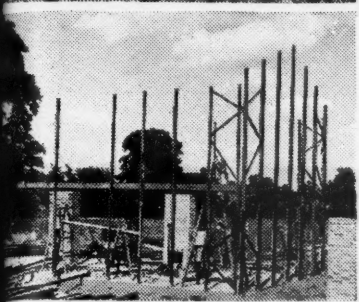
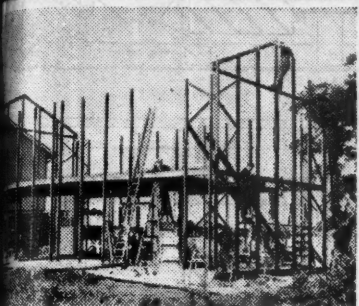
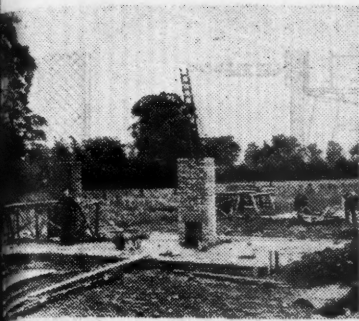
SECTION



### House Type B

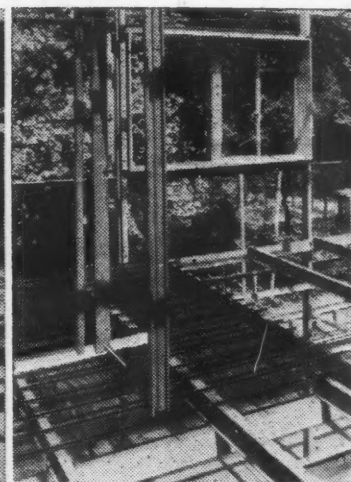
**Frame :** of light gauge sections cold formed from mild steel strip fabricated by means of spot and ridge welding. Posts spaced at 3 ft. 6 in. centres. The structure has a central trestle of tubular sections supporting the first floor twin light gauge cold formed channels, spot welded together. **Roof :** of prefabricated trusses composed of light gauge sections ridge welded at intersections. Roof covering of protected metal sheets on fibre board. **Walls :** External cladding a matter of choice. In this case the ground floor wall is rendered in Tyrolean finish on steel dove-tailed sheeting, or on paper backed welded wire fabric. Above the ground floor window heads the external cladding is of horizontal ribbed steel sheeting. The inner leaf is of prefabricated panels of plaster board resin bonded to fibre board insulation, mounted on wooden batten stiffening. **Floors :** The first floor of twin light gauge channels spot welded together and spaced at 2 ft. centres, on which a batten and timber floor is attached by clips. The ceiling is of fibre board or plaster board mounted on wood battens attached to the steel joists. **Party wall, flues, windows, doors, and staircase as in Type A.** **Plumbing :** As for Type A. **Hot and Cold Water Services :** Cold water as in Type A. A small independent boiler is placed in the dining kitchen. **Electrical Installation :** Of the ring main system. The wiring of P.V.C. cable in skirting. **Finishes :** Skim coat plaster applied to the plaster board and the fibre board panel lining to the external walls. Partitions and party walls in two-coat plaster work. All ceilings, except of the living and dining rooms, of skim coat plaster. These two are finished with fire-proofed fibre board and cover fillets. Walls decorated with wallpaper or oil-bound distemper.





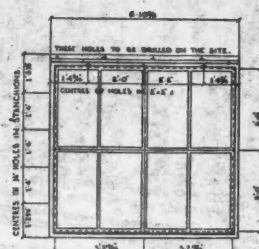
**STRUCTURAL AND NON-STRUCTURAL STEEL:** Both types are examples of steel frame construction. Type A uses the traditional steel joist sections. It is a straightforward frame with columns spaced to take standard metal windows in their subframes. Roof trusses were made both from steel joists and welded steel tubes for the sake of comparison. Tubular columns support the centre spine which carries the first-floor beams. The type B has a frame of light-gauge sections cold formed from mild steel strip. The members are spot or ridge welded together. This lighter type of frame makes use of a different part of the steel industry. Its grid has to be more rigidly adhered to because of its lightness. In the living-room a special prefabricated window subframe was made, with hollow mullions at 3 ft. 6 in. centres to receive the columns. The external cladding is hung on the steel frame. It consists in type A of vertical ribbed steel sheeting, galvanized and painted. The frame is concealed between the inner and the outer leaf. In type B, horizontal ribbed steel sheeting, galvanized and painted, has been used, and below up to the head of the ground-floor window, steel dove-tailed sheeting with a Tyrolean finish on paper-backed welded wire fabric. It is estimated that under normal circumstances it would take three weeks to build a pair of these semi-detached houses ready for occupation.

The photographs on this page show the types A and B in various stages of erection. Some were taken at Northolt and some during experimental building at another site. The strip on the left shows type B in intermittent stages of building. Above, type A, a view from the first floor level before the floor was laid, showing the special window subframe of the living-room installed, and on the left the first section of the cladding is hung on to the frame. Below, the single flight steel staircase, a typical standard window fitted into the main frame, and cross bracing at end wall. On the right the rendering applied to the paper-backed welded wire fabric.

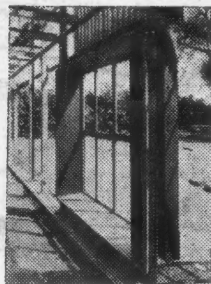




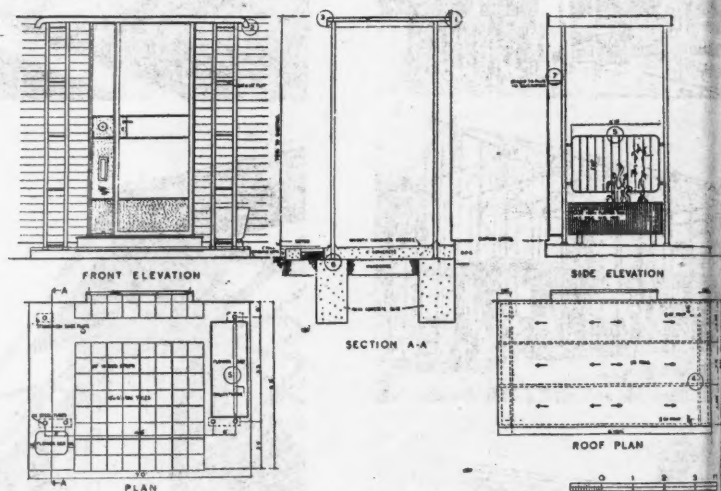
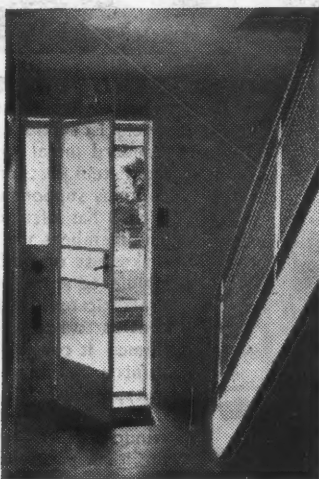
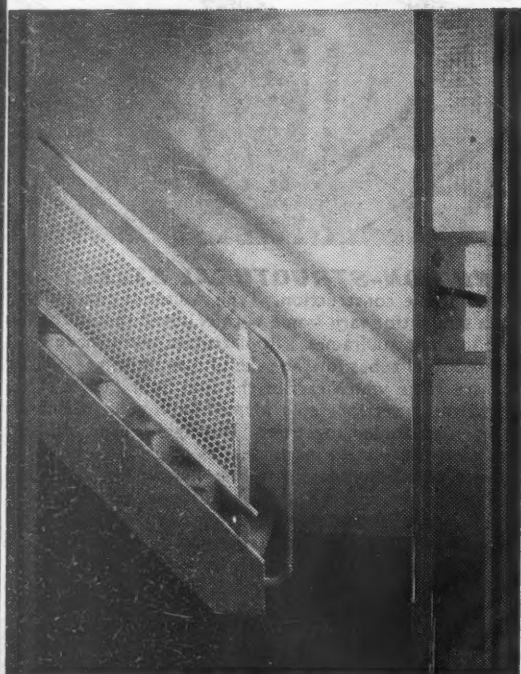
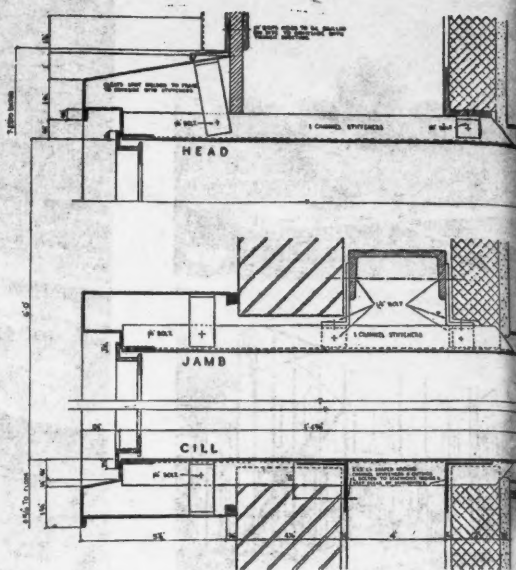
**DETAILS OF SPECIAL FEATURES.** The 6 ft. 10 in. wide living-room window in the Type A house is made up of standard metal windows fixed in a prefabricated pressed steel surround and is hung between the steel columns. The staircase, in a single flight, is of spot welded pressed steel construction. The treads are of wood on a pressed steel section which forms tread and riser in one. The balustrade is of a perforated steel sheet in one of the houses, of wire mesh in the other. The porch of the Type A house has tubular steel supports and a roof of galvanised steel sheet.



KEY ELEVATION

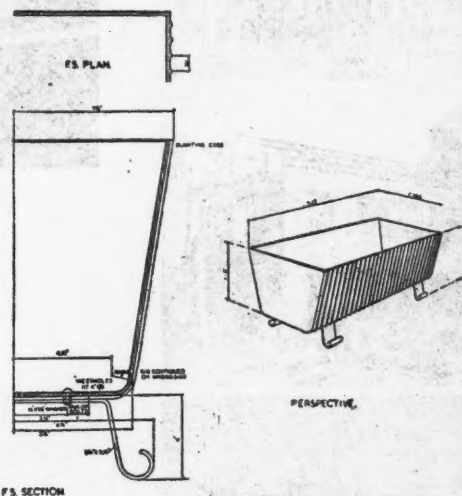
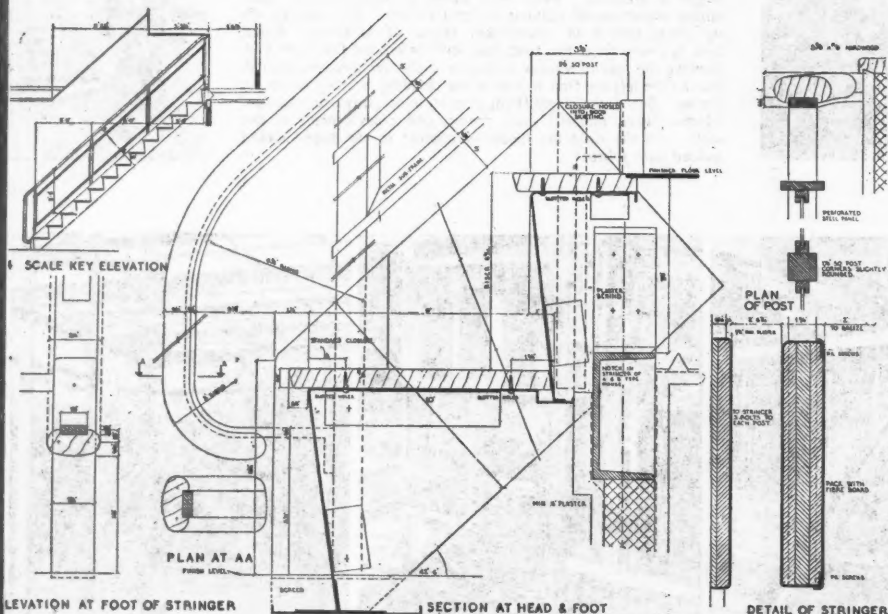


WINDOW OF TYPE A HOUSE



PORCH OF TYPE A HOUSE

STAIRCASE



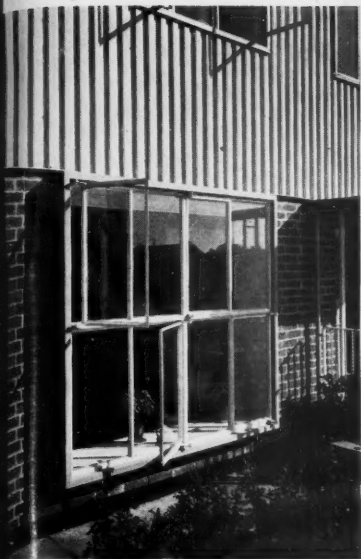




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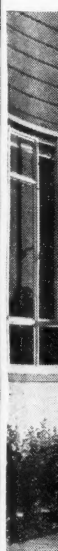
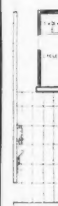


6, the large window of the type B house with its low and wide sill is a pleasant modern version of the traditional bow window. It is a great attraction in the living room and lends interest to the facade by effecting a happy junction between the steel sheets above and the brick below. 7, looking towards the eating part of the kitchen which could easily be separated from the cooking part, if wanted by a door or curtain. 8, looking at the dining recess and terrace beyond the fireplace wall through the opened folding doors, which allow the living room to be thrown into one with the dining recess. The fireplace, with its central flue serving a hot water boiler at the back, in the kitchen part, is designed as the fulcrum of the house. It is treated as such in a material distinct from the other parts of the living room (in this case a finish of rough plaster, facing brick in the other type). The wall recess next to the fireplace is painted in bright red, alternatively it could receive a strongly patterned wall paper. 9, entrance porch to the type A house. The tubular steel columns are painted in bright yellow, green in the case of the house beyond. The little grille for flowers is of twisted steel reinforcement, and the flower box of cast iron. The porch provides an agreeable sense of enclosure.

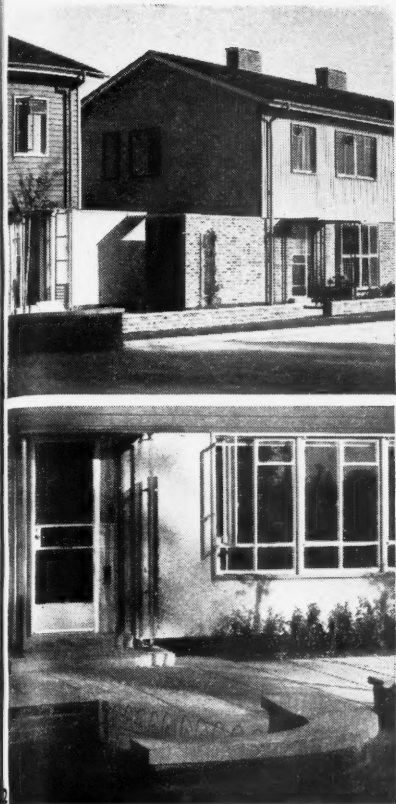




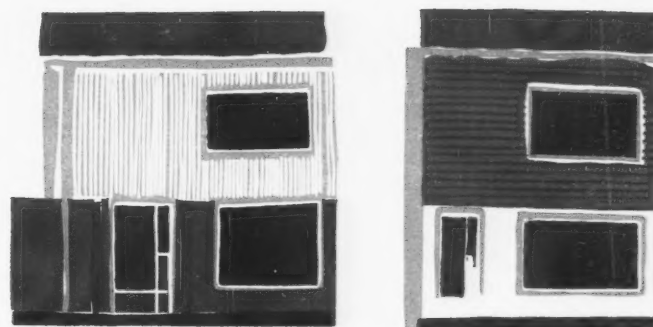
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11, 12, 13, the approaches, showing the linking extended wall which screens the service entrance, the rounded kerb edge guiding the eye from street to entrance porch, a close-up of the service entrance and the paved space in front of the houses. 14, the back-sides, with the baffle walls extending into the garden and sheltering the small terrace. They provide the important visual link between house and garden. Above right, a suggested colour scheme for the two houses.

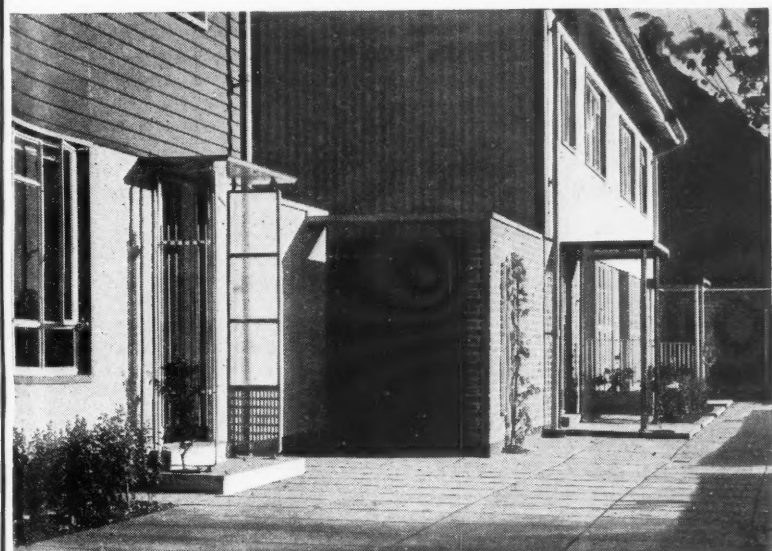
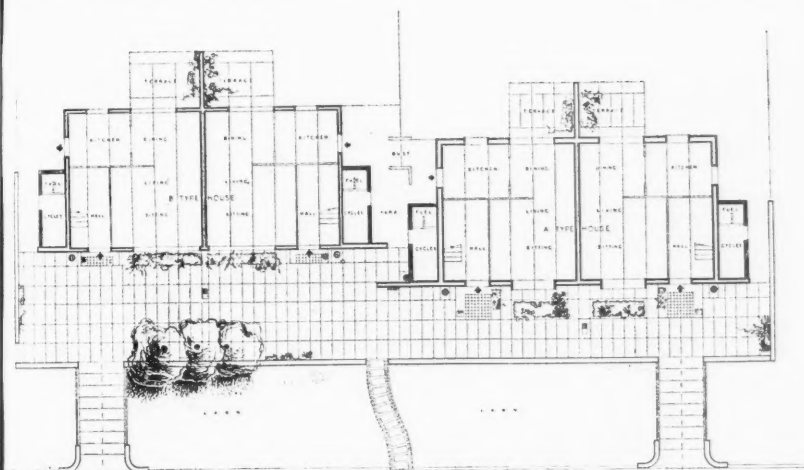


**EXTERIOR FURNISHING.** Amongst the general run of experimental housing these steel houses stand out, in the extreme care given to details of appearance, notably the choice of colour and texture. After plan and structure, two main considerations seem to have guided the designer. One, to fit the houses into the landscape by establishing a cordial relationship with garden and street, the other, to give the houses that degree of ornateness which people demand for their homes, and which the jerry builder provides for by his sham half timbering or other pastiche.

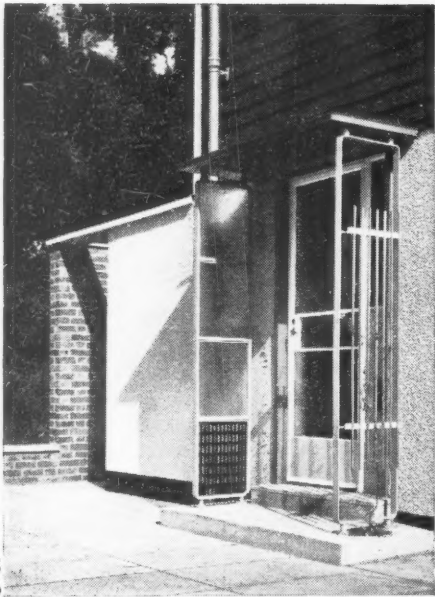
All exterior furnishing, of detail, colour, texture, is carefully chosen to fulfil these visual demands, whilst the porches, terraces, baffle walls, pavements provide in addition very real advantages for outdoor living. Facing materials have been used to give variety—individuality—in colour and texture. Rough materials such as brick-work and rough cement

rendering were employed to contrast with the precise surfaces of the steel sheets. These again were ribbed and coloured. Though the precision of the machine process was expressed by outlining forms such as corner posts, eaves, window surrounds, this was not unnecessarily emphasised in the general appearance of the houses.

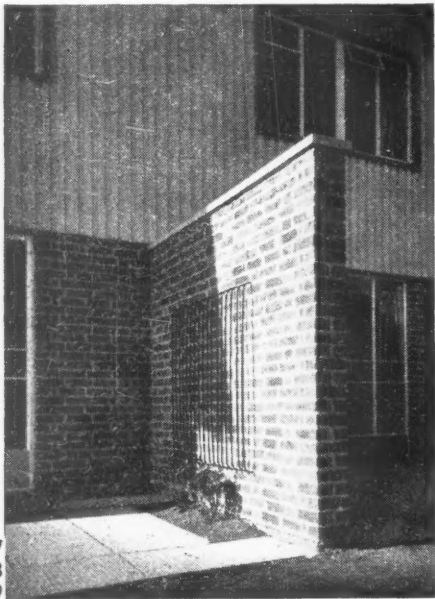
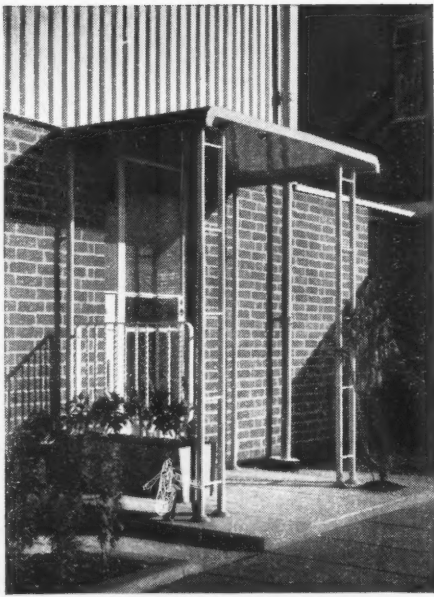
The approaches to the houses are carefully landscaped. One pair is set back behind the other, thus establishing the individuality of each, though they are linked, like good neighbours, by an extended one floor high wall which screens the service entrance. This setback gives an architectural interest to the buildings as a group, and the pavement of varying depth, the communal strip of lawn, the brick kerb and attractive iron railing help to produce an agreeable miniature street landscape. The transition from building to street is a gradual one, helped by the half-open porch structures, the neat pavement, and rounded brick kerb which links the entrance visually to the street. At the back of the houses a similar effect is achieved by the baffle walls which shelter the small terrace and thus provide another half open, half built-up item to put between the house proper and the garden. A series of trellises are meeting nature more than half-way, and encourage vegetation to creep up the walls, thus softening still further the contours of the house.



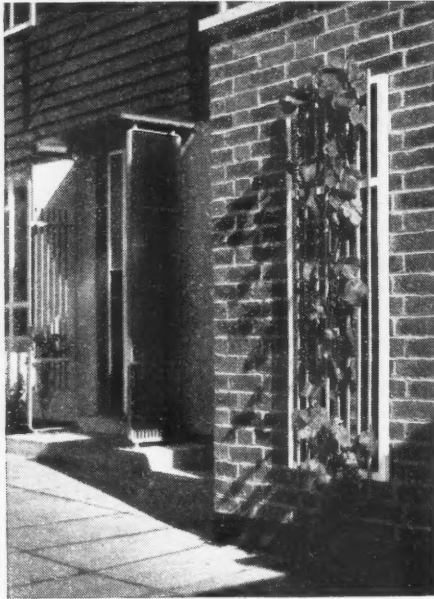
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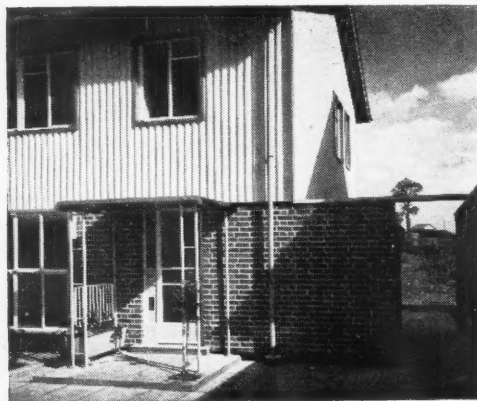
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Porches, baffle walls, trelliswork are useful and decorative additions. They lend richness and intricacy to the appearance, which the low income group house needs as much as the classy villa. **20**, a detail view of the horizontal textures employed in lawn, footpath and pavement, in combination with the brick kerb and decorative wire railing.



20





## Eric Brown

A steady current of robust if debased Baroque design in the form of fairground decoration has flowed undiverted through fifty years of Victorian and Edwardian architectural vicissitudes. Curiously enough, it remained unnoticed by the architectural observer. An extremely limited bibliography exists on the subject and we must depend upon descriptions, memory, and faded paper-negated contemporary photographs for our information on the earlier fairground. The drawings and photographs which illustrate this article form part of the very small amount of serious recording of this extravagant form of public entertainment. It is strange, also, that the valuable lessons of quick demountability and the remarkable achievements in unit construction, worked out forty or fifty years ago by the showmen, have escaped notice in a period of architecture with its eye on the problems of prefabrication.

Against a background mixture of hard-boiled materialism and sentimental superstition which goes to make up the behaviour regarded as sober, respectable suburban good taste, the ephemeral fantasy of the holiday fair comes and goes. It is shudderingly avoided by the patrons of the conventional entertainments and suffered by them as a regrettably noisy, but inevitable accompaniment to the full-blooded vulgarity of the holiday mood of what the nineteenth century would have preferred to call the lower classes. Not that this is a well-founded attitude, for the exuberance of the fairground is an obviously fitting expression of the reactions of the wage-slave barely raised to the brink of education and still essentially primitive in emotion. It is a symbolic expression of his rare liberation from industrial confinement, an unrealized

survival of the feast day, or the renewing of a bargain. Whatever it signifies, to the poor man the modest orgy of the fairground brings unfamiliar and intoxicating colour, sound and movement. Above all, its greatest thrill is that it is an outdoor pleasure, along with the day at the races or the seaside, the river steamer or rowing boat, and the street market (with which it is often combined) and its sustained popularity is undoubtedly greatly due to the physical satisfaction that it brings to the industrial worker.

To the readers of this journal, however, its most interesting features are probably the evidences the fairground contains of the survival of an important popular art in forms of decoration inherited and conservatively followed from Victorian precedents, redolent of a Cavalcade-like flavour of enthusiastic and respectful

## Barbara Jones

ENGLISH roundabouts run deisul, clockwise. The practical result of this gesture to ancient ritual is that one mounts the horses correctly from the near, the richly decorated, side where the eye is glass instead of painted, and the gilded mane rolls more heavily. The offside is only lightly carved, much of the decoration is put on with paint, and this decline is progressive—the inside of the inmost horse is hardly even painted. But everywhere else the decoration is unbelievable in its thoroughness, and any available space on the wooden construction that might catch the eye is embellished with jungle, flower or film-star, while a banner swings in any aerial space not amply filled with animals, their glittering rods or the organ. On the banners may be more jungles, flowers, fruit, or the price of a ride. You have been informed by the rounding board before mounting that the horses are the fastest in the world but yet the safest, that the gallopers provide "Good Riding for all Classes" and perhaps have been "Patronised by Royalty." The horses may be "Arabian," "Gallopings," "Prairie," "Mexican," "Mountain," "Blood," "Canadian," or merely "Race"; some of them on small, children's rides retain the names of horses of romance, like "Beucephalus" or "Black Bess," but the no less romantic and surprising names of race-horses are most usual on the full-size roundabouts; "Golden Miller," "Bend Or," "Sun Chariot," or rather Freudianly "Jean's Dream."

The showmen are great connoisseurs of the horses. Indeed, between the narrow limits set by the Eclipse pose and the baroque decoration the variety is enormous: some are country cousins, with mouths open in gaping wonder, dull wooden eyes and feet hanging limply



The drawings were made by Barbara Jones; the photographs were taken by Eric Brown

monarchism, of nobler and more benign royalty, and of a complacent imperialism of wider still and wider Empire, bringing with them stranger and stranger natural and mechanical wonders, encouraging a one-day snobbism which elevated and restored to the worker a proper esteem and self-respect.

The fairground owes this survival of its robust spirit and decoration to the genteel self-consciousness of the middle and upper classes which has restricted it to the most expressive of the social classes. Imagine, if you can, a fairground designed to the taste of the decorous residents of Surbiton or Winchester. What efforts have been made in this direction seem to have produced only an emasculate but serviceable mediocrity which one does not wish to see repeated if the fairground is to continue its particular function in public entertainment. Changes in manufacturing methods and convenience of transport make their mark, as they should, on the character of the newer machines, but the essential quality of unashamed heartiness remains, and the flabby hand of the gentlemanly designer has not yet been loosed in the field of fairground design. May that same quality which gives us the writing on the coster's barrow, on the cut-price store labels, and on the windows of the cheap "Dining Rooms" continue in the decorating of the fair machines and may the slick American industrial designer be restricted to static streamlining and the architectural re-styler to his pale blue and gilt church furnishings.

Not only is the patron responsible for the maintenance of this standard of glitter and colour, but the showmen themselves retain a personal interest and gusto for their trade, rare in these days of the limited liability company. Their own journal *World Fair* must be unique in the emphatic and enthusiastic character of its contents. A world of travellers, without fixed environment, with a trade language of their own, and their livings earned by their own property, is a unique thing to-day, and it is proper that change should be slower in this self-contained community.

The attractions of the English fair have always been many and sometimes unexpected in their variety. Performers, human and animal, freaks and pugilists were common in the seventeenth century; the eighteenth produced the "musick house"—at Bartholomew fair "the musick houses stood thick by one another"—and their entertainment varied from indifferent musical performances to the rendering of ballets, operas and tableaux by star London performers—Gay's Beggar's Opera being performed at Bartholomew Fair in 1740. Dancing and refreshment booths, wild beast shows, and stalls peddling gingerbread, toys, garters, trinkets, baskets, cheap prints and all the other fripperies which it is still the delight of the public to bear away from the fairground were plentiful. But here the pleasures ended and except for real horse and pony rides and an early form of swing boat riding entertainments were unknown.

Fairground entertainments divide into two classes—rides and gaffs. Gaffs are the widely assorted entertainments ranging from "Walls of Death" to houp-las. The gaffs are usually small and consist of a front only, with a canvas top, sides and

back, and are not architecturally so interesting in their decoration as the free-standing and three-dimensional rides, whose siting, construction and general complication gave much more scope to the decorator—opportunity rarely neglected.

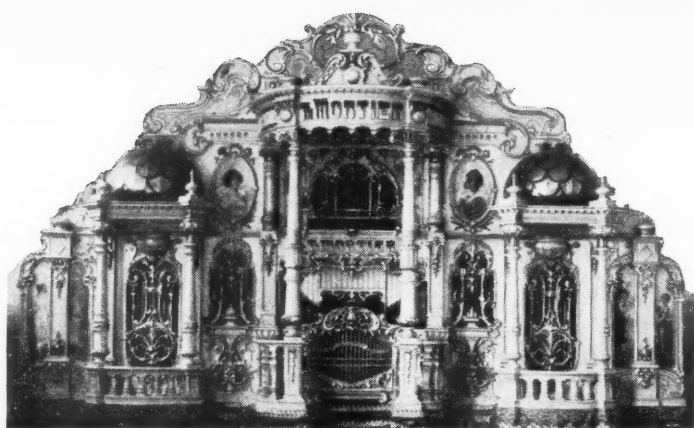
The layout of the fairground is planned with great care, and showmen are very critical of their own and their competitors' planning. In the centre of the "tober" are sited the great moving attractions—the gallopers, switchbacks, and the other spectacular rides, with plenty of room around them for the crowds to circulate. A helter-skelter, or slip, stands vertically off centre, contrasting with the general horizontality of the fairground like the campanile of the Lombardic church. Bordering the ground and turning inward to enclose the fair is the "side stuff," cokenut shies, shooting galleries, freak shows, haunted houses, dart throwing stands and swings, and scattered about the open space between the big rides and the side stuff is the "round stuff"—small circular stands with mysterious names, "Roll'em Ins, Juveniles, and Houp-las." Behind the side stuff are the living vans of the showmen, and the steam traction engines and diesels which provide the current for the machines and the peace-time lighting.

For over fifty years the principal rides were horse roundabouts, familiar to anyone who has ever visited a fair. The idea of the hobby horse is quite old; examples of it can be found in early nineteenth century lithographs. The fundamental mechanical principle remains the same to-day, but then the ride was without any decoration and the horses themselves were mere lumps of wood, and of course without the galloping motion. Perhaps the reason for the early and continued popularity of the horse ride lies partly in the social elevation which comes from the riding of a horse, and the delight of the town-dweller temporarily raised to the status of a cavalier is not difficult to imagine, particularly in the grimmer industrial periods of the last century.

Various developments of this primitive ride were produced during the middle of the century, the motive power in all cases being manual, though there were Continental instances of living ponies being used to rotate the machine, but the real thrill of the galloper had to await the successful results of the patient toil of the steam engineers before it could be realized. S. G. Soames, of Marsham, about 1865, first applied steam power by means of a stationary engine and a belt drive to a roundabout which was called a steam circus and consisted of assorted animals, but it remained for the agricultural machinery manufacturer, Savage, of King's Lynn, to develop and perfect this innovation. Once again the triumphant results of Victorian industry and intelligence placed further blessings at the service of mankind, and the era began of large and swift machines, of three, four and even five abreast horses with a galloping movement, and, following the fashion of the period, a lavish application in every possible position of carved, painted, and gilded decoration of debased Baroque form, of prodigious exuberance and vitality.

These gallopers continued without competitors for more than thirty years. Many of them built in that

[continued on page 52]



as though their brass rods must take all the weight; others prance proudly on outflung sharp hooves, their teeth bared to bite a rival stallion, their glass eyes gleaming arrogantly and their ears pricked sharply forward in cast iron instead of standing up bluntly in wood.

The most realistic horses are rarely the best—elaborate carving of hair round the hooves or neatly painted eyelashes are no help if the pose is weak. A real horsehair tail always looks good, but on the whole the convention has gradually worked so far from reality that looking at the cow-square heads and the flanks carved with roses and thistles one wonders how one is still sure that it is a horse.

On the switchbacks, the animals are replaced by golden gondolas, or the cars may have dragons' heads. Sometimes the dragons are used for roundabouts, too.

There are birds as well, but they are not our little feathered friends. Anyone who has held even a small bird like a sparrow and looked at it closely will agree that though the feathery part may be cuddly, the eyes, beak and claws are terrifyingly hard and cruel. In the nineteenth century when roundabouts were first made (at least on any scale comparable to those we know to-day) birds tended to appear as little soft muffs with sentimental expressions, and, with skill like that used by the old American morticians who gave to a corpse "a look of certitude of heavenly bliss" for an extra four dollars, the men who stuffed birds for glass cases managed quite often to reproduce this effect on small specimens. Most of the big birds, albatrosses, vultures, owls, may be seen in local museums sternly to have overcome these attempts at softening; and the roundabout designers, whether realizing this failure, or remaining true to an earlier recognition of the innate grimness of birds, have produced peacocks, turkeys, ostriches and cocks of great ferocity.

It can be seen on the three that I have drawn together that earlier birds have interbred, grafting on to the cock the ostrich's long neck and thick toes. Most of the tails are ostrich, too. The turkey's fleshy neck in folds of flamboyant paint must be seen to be believed, and he, like the cock, may be no longer pure-bred but will have acquired a peacock's tail, another magnificent opportunity for "doing flamboyant." This is a recent innovation (like the chromium plating of the old brass twisted rods) which consists of going all over the animal with gold or silver paint and glazing afterwards with transparent colours in a limited range, such as carmine, yellow, viridian and prussian blue, suggestive of the colours that can be used for tinting magic-lantern slides. I have seen one mermaid on a merry-go-round, and she was realistically treated with ordinary paints as the animals used to be.

Neither birds nor dragons are given names, although it is difficult to see why not, as children walk round the gallopers in the morning when all is quiet and choose their horses for the evening threepennyworth, remembering their names and those of previous horses. Another curious thing for which it is hard to find a reason is that when two-seater animals are wanted, the horse, which is large and has a long flat back naturally big enough for two, is rarely used, the birds being the most frequent victims of this elongation, although they are of species which in full display as carved have no backs worth mentioning.

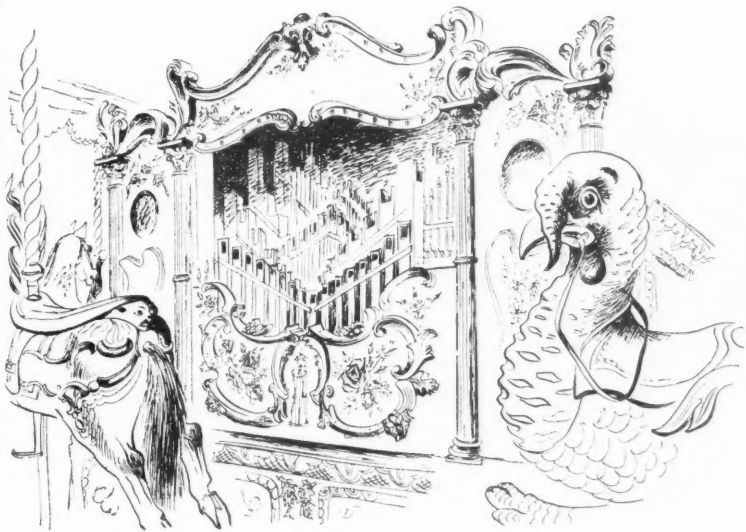
The bat-winged dragons are used either single or double seater (who knows which they should be?) and are made very like horses, same pose, same proportion, but with webbed hooves and devil tails. Their bodies are scaled over and painted a strong dark green. The heads are magnificently carved with such assurance that it is impossible not to feel that the snarling fangs, rolling tongues and folded leathery lips were derived from natural forms, but the most vicious of them cannot rival the nightmare power of the birds' pounding feet and great slashed beaks. No, the birds are not our little feathered friends.

The organ is always on a chassis separate from the main engine, but is drawn up beside it when the machine is built up and fits inside the





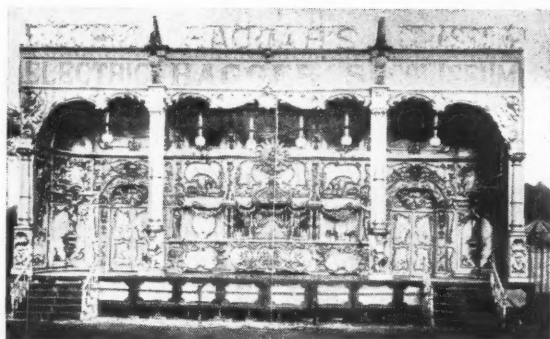
On the previous page, richly carved organ of continental origin. Above, carved and painted coat-of-arms, usually stood on the top of the bottom centres, as also the cherubs and initials, found on a roundabout at Kew Bridge. On the right, three horses of different type and ornament. The one in front (Anderson) perhaps the most magnificent, the one in the middle, the most realistic though not necessarily most successful (Lakin), the one at the back (Lyons) a country cousin, more naive. The colour scheme on a cream ground is, in the case of the front horse, mane, forelock, flower, buckles, outline of saddle, scrolls, in metallic gold. The inside of the ears, nostrils, lips, in red. The bridle, front of throat, parts of the scrolls, in metallic red. A turquoise border around scrolling, and a royal orange outline to saddle. The horses have two holes on their undersides for ventilation. Below, organ and turkey. Organs are mostly of French or Italian make. This one was made in 1933. Great care has to be taken of them, as they are much affected by damp. Note the very Sumerian head above the horse's tail. Bottom right, an organ from a French dance hall. Many come from such places.



period exist to-day, but few are in their original condition. Like sailing boats and merchant shipping, periodically they change hands and the latest owner makes alterations and additions. Organs, animals, even rounding boards and centres, as well as the mechanical movements are varied and only a showman can say with certainty how a ride began. The war has brought out many of these old rides (just as bombing and fires have destroyed many) discarded years ago as old-fashioned and not sufficiently exciting for a generation hardened to the perils of the arterial road, the dirt track and the aeroplane, and they are to be seen again on the fairgrounds, restored to much of their original condition, though the end of the war will also see their end, for they will go back to the yards to be broken up or destroyed.

Though the principle of the galloper remained fundamentally that of the earliest roundabout, there was one important difference in that the horses were no longer supported by a framework or platform at ground level, but were suspended from an overhead ring carried by the centre, from which the moving platform was also hung.

The erection of a set of gallopers forms an interesting study for the architect or engineer, displaying as it does in the showman a talent for simple improvisation equal in resource to military field engineering and contrasting favourably with the static complication of building erection methods. The truck carrying the engine and the centre (in the case of the steam-driven galloper) is first sited and blocked up solidly off its wheels. The organ truck—a complete and self-contained unit—follows at one side. On the centre truck the top frame is next erected, heavy parts being manhandled to the roof of another van which is then backed up to a point where it will form a convenient working platform. The radiating swifts and the wire or bar guys of the top frame are then similarly assembled and the structural section is complete. At this point the canvas tilt is rigged and the remainder of the work can take place under cover, the organ, enclosed in its own canvas casing, remaining undisturbed until everything else is in place. The vertical rods carrying the animals follow, and others carrying the platform, and the platform itself, built in sectional units, is completed and temporarily blocked from the ground. At this point the ride presents a thin and unsubstantial appearance, very different from the encrusted ornamental heaviness with which the fairgoer is accustomed. Many of the structural elements, through constant assembly, must necessarily be shabby and worn, so that the decorated centre and rounding boards serve a dual purpose in covering the structure and in adding the magnificence and solidity the occasion demands. The final stages consist of the fixing of the centre boards and the rounding boards, a final polishing of the twisted brass coverings of the vertical rods, the fixing of banners, flags and notices, and a preliminary run. Demounting or "pulling-down" is naturally a quicker operation, and men starting early in the morning can usually get a steam roundabout on the road by midday. It is remarkable that a



running board. The utmost elaboration and skill are used on the decoration of the organs even now, when the number of trailers to each motor is strictly limited and road regulations have ended the travels of the old immense roundabouts towering with ornament. But as the organ has always its own four wheels, being one trailer complete in itself, its complications remain undiminished. Many of the most highly decorated organs came from French dance-halls, where they tower in a gallery at one end, taking the place of a band. The organ with life-sized figures in flowing drapery drawn here is one of these; the women are completely gilded and there are nine of them, dancing on olive-coloured rocks.

The little organ pipes are square in section, and the different sizes are arranged in attractive patterns and groups of colour. The blaring music is on stout card, the pieces joined with linen, opening out like a seaside-view-postcard; the notes are oblong holes cut in the card by hand, so that the music is expensive and a very new and popular tune may cost as much as £20. The pipes are in an open-fronted box with decorated base and sides, and round the opening, to display the works, goes an elaborate frame of fine rococo curves. At each side of this and sometimes in the middle, often on little semi-circular platforms jutting from the bottom on the frame, may stand automaton figures, anything up to half-life size, with leather-jointed arms, and sticks or flutes in their hands. They stare rigidly before them out of blue eyes set in dusty, porcelain-tinted faces, and beat their monotonous accompaniment to the organ on a little drum or cymbal. They may be a man and woman in eighteenth-century costume, or a mediæval king and queen, or dressed like the shepherd figures in old-fashioned dairies, or high-breasted women in pantomime-principal-boy costume with gold embroidery painted up their tiny feet and ankles to their superb calves. But all the clothes have been seen through a fresh eye, have been a little distorted by someone unskilled in historic costume, and make a new period and place of their own, an unprecedented category. However dressed, no figure looks at the music or the instrument, and all of them, pastel tinted and gay in intention, have the same unconscious faces above their moving hands as belong to the automatons on clocks. And they are further set apart from the rest of the roundabout by their paint, always matt and powdered with a little dust like a church image, while everything else is varnish and shine.

The paintings on the top and bottom centres, on the other hand, are meant to be exciting and to give tremors of delicious fear; but although showing scenes of the bloodiest carnage from the Boer War, terrible tiger hunts, or battles between bear, lion and boa-constrictor in rich green jungles, they are all painted with so much innocent charm that they completely fail to alarm even the smallest child. The best of them are exactly like paintings by Rousseau and are done to-day in a fifty-year-old technique: some of them should be preserved, as they are continually painted out and the pleasantest of them may at any time disappear under a wave of portraits of Stalin and General Eisenhower (a kind of Nine Worthies Gallery), and one may see on the machines already bearing pictures of film-stars that the bent of the painters is not to portraiture.

On the top-centres there is usually more carving and rather less painting, maybe only a medallion of it in a heavy surround, the bottom being furnished with droppers—scallop, diamonds, circles, etc., of carving or mirrors. These may also hang below the rounding board, the glass reflecting the sun or the lights of other machines. Mirrors on roundabouts, bevelled, cut and painted, add finely to the dazzle of the effect, and so do electric lamps, white and coloured, which are used in thousands on a big showground.

If you think carelessly about a fairground, it is easy to remember the steam engine with a chimney coming out at the top of the striped canvas tilt, and clouds of smoke. Naptha flares also leap to the mind though these have been long superseded, and the twisted brass rods are giving way to plain chromium everywhere. Power is now electricity, and



Top, two Bioscope fronts of about 1910. They feature an impressive organ with moving figures and their continental origin shows in the free nature of the decoration. Above, one of the organ figures; below, detail of a painted panel. On the right, two-seater birds by different carvers. These large-necked birds have their heads taken off for transport. Though the heads have been studied and stylised with great care, interest has not extended to the feet, which are more like gout bandages than birds' claws.





the dynamos travel with the machines. Transport is by motor; how long is it since you saw horses pulling the vans? But the mind seems a little surprised at this contemporary equipment, replaces it with something fifty years out of date, and looks with wonder at the sparks flying from the Dodgems, and at packets of Players and American sailor hats as prizes on the shies; though fashions have changed in narrower limits still, and "I'm no Angel" written on the front of the hats has changed to "Get up them Stairs." Red and gold vases are the prizes we are looking for.

Rounding boards are less elaborate than they were before the changes in the road regulations. The big boards rioting against the sky in old photographs have been left behind in sheds at winter quarters and some of them have been lost, with many smaller complications easily left off, but the modern lighter and smaller ones are still very fancy. They usually go up in twelve sections, one between each pair of swifts, and on the flat part of the board which remains on the most closely pruned roundabout, the name of the owner and a description of his stud are painted in heavy, voluptuous lettering. Somewhere under the layers of fat lie the Trajan Column letters, as the lines of the slim Egyptian dogs are hidden in an Old English Sheepdog, or as one can trace an over-stuffed armchair back to Sheraton. The letters are usually in strong relief, richly shadowed and foliated. Above these flat boards are twelve more, leaning outwards and billowy-edged, supporting lights and flags, while the droppers go all round beneath. The joints between the lettered boards are covered when possible by a carved shield or similar object, and ornaments or horses' heads may be carved out from this on the main boards to enrich the corners round the names and slogans.

On an ordinary roundabout the thirty-six or forty-eight animals and birds give a sufficiently intricate pattern, but on a switchback there will be only four or six cars in one ring and a certain monotony might occur. This is never allowed to happen on the older types of machine (the modern Dodge'Ems are dull enough), as much of the glamour lies in intricacy, so the whole construction is different. A fixed but up-and-down platform goes round the revolving cars; at one of the two dips in the circuit are steps to the ground with fine marbled balustrades sweeping out on to the grass, and the space between the platform and the ground is filled in all round with painted scenes in bowers of roses, dirt-track races or jungles. From here to the rounding boards run pilasters, caryatid figures or pillars wreathed with flowers, monkeys and parrots. These cut up the long toothed shapes of the cars. Golden gondolas with high prows were once very popular but dragons seem to have won the day.





**Songs commonly played  
by the roundabout organs**

Oh, Flo, why do you go, riding  
about in your motor car

I've got a bungalow, little girl,  
in Borneo

**Come where the booze is cheaper**

**Hear the bugles calling, Jenny dear**



*Pay-box, green with gold carving and lined scarlet*



Some of the ornament, instead of deriving from Continental Baroque, suggests that here and there a designer may have picked up in some museum, house or book a useful tip for adding variety to the traditional schemes. What other explanation is there for the gold lions' heads under the backs of some of the saddles, so exactly like those found at Ur? The changes in the main trend of decoration are apart from these isolated researches; the showmen must have seen Jazz and Wembley all round them and wanted to be in the fashion (some of them say the horses are doomed), so that these sweeping changes are as inevitable as electricity and chromium; it is only odd to see the Baroque still flourishing as it does at the fairs and in the markets, where on painted carts the men pile vegetables and fruit, afterwards writing the prices on fat shields in very fluent curly figures, perhaps inspired by the undemountable Baroque of tattooing on their own arms.

But one is bound to speculate on the inspiration behind that isolated mermaid, and on the source of an organ automaton I once saw wearing an almost perfect replica of the Crown of the Kings of Kandy.



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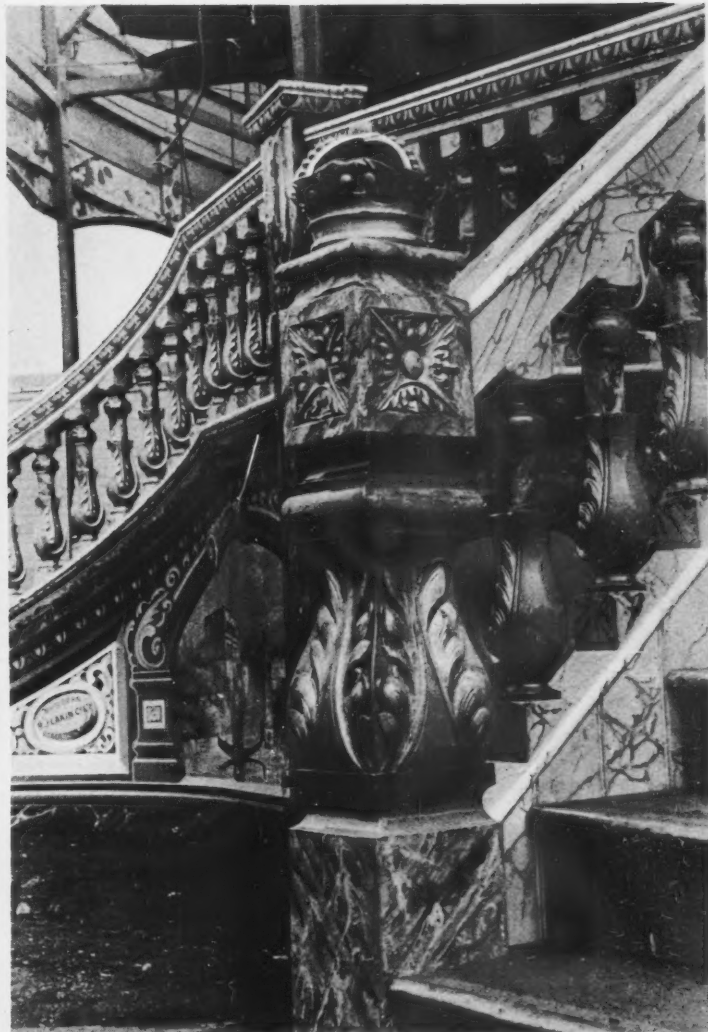
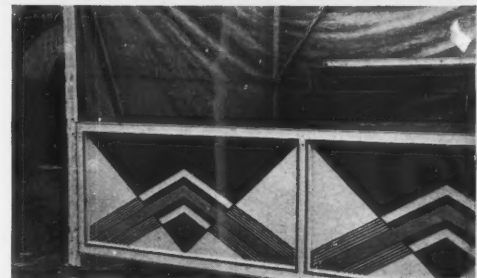
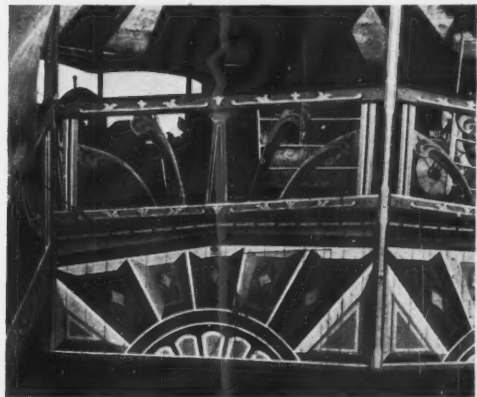


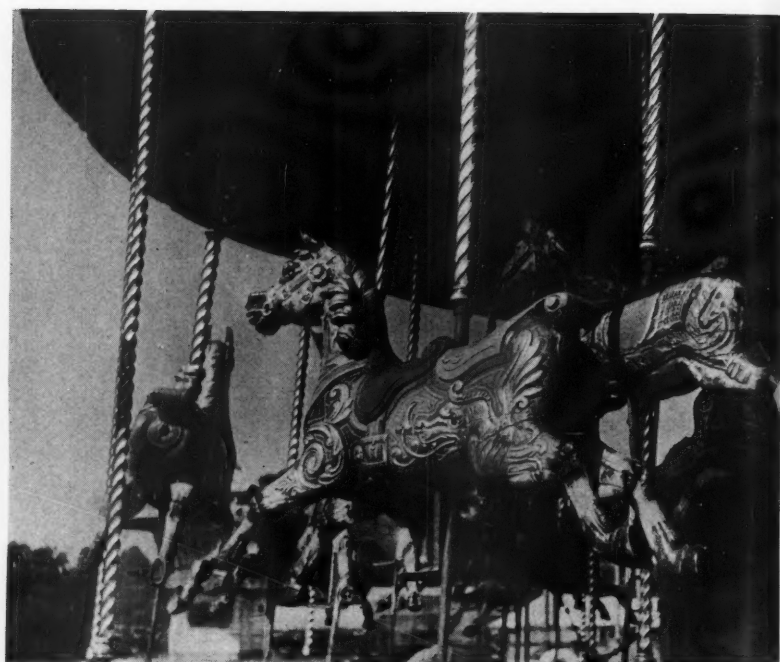




The pictures on the left are of top and bottom panels of rounding boards, carved and gilded, with brilliant-cut mirrors. A recent innovation, the portrait of a film star, already a little out of date, which replaces the carved work on a top-centre at Kew Bridge fair-ground. The original droppers of dragons and shamrocks remain.

Below, walkways and fronts. A magnificent newel post, handrail and balustrade of a Ben Hur built by Lakin. The decoration ranges from the gold, scarlet and elaborate marbling, paintings of well-known Venetian buildings, floral panels, to jungle scenes and the jazzy type of more recent, simplified, but also less inventive ornament.

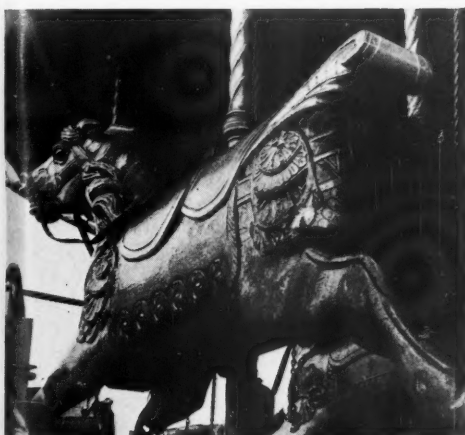


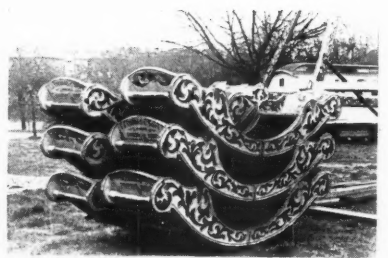
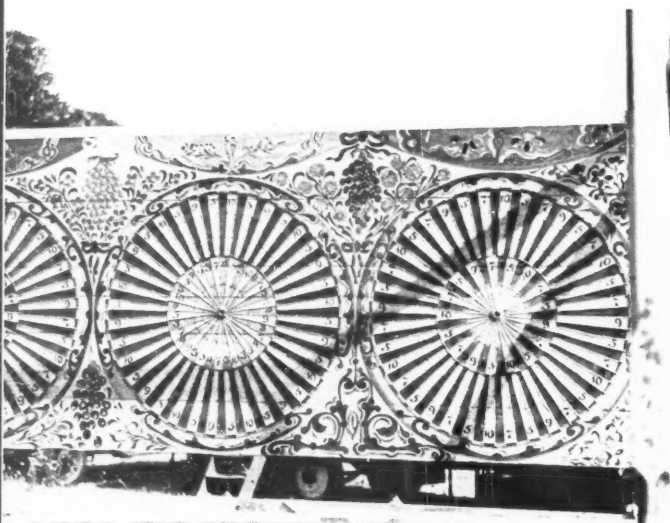
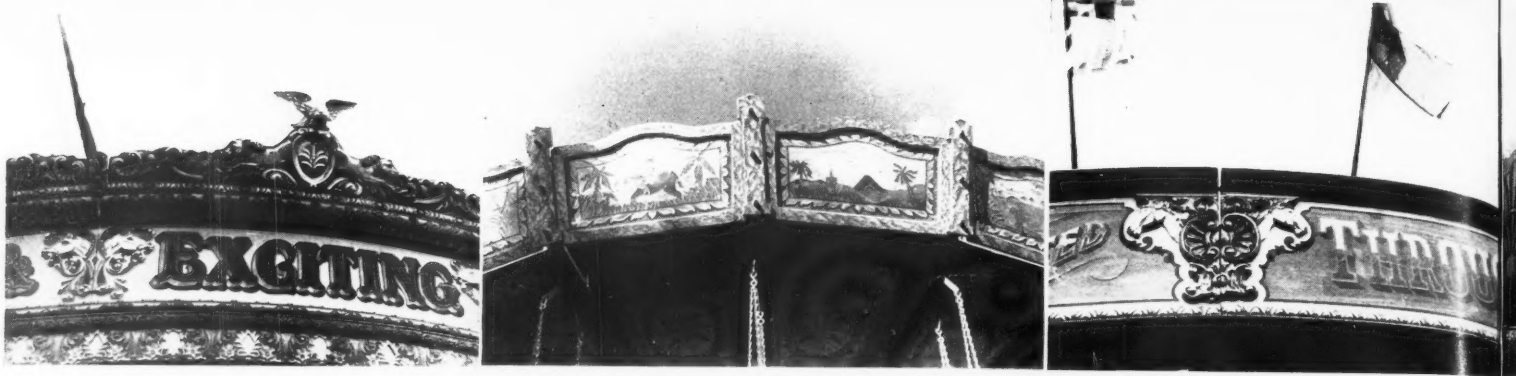




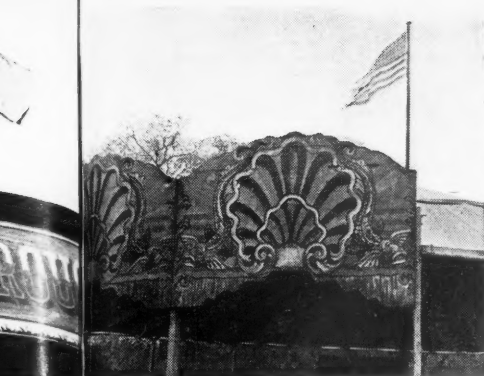


On the left, details of various gallopers : the head of "Dancer," Italianate grotesque mask on hind legs, a patriotic emblem of Britannia and three Union Jacks, an unidentifiable lady, possibly Quattrocento, some forgotten colonial hero, Anderson's signature on one of his horses. Below right, "Lone Eagle" is the outer and more showy of a three-abreast galloper. The middle horse, not of the same original set, is only slightly carved, the inner galloper painted only ; also an out of scale peacock which dangles precariously from "Lee's Juvenile Arena." Bottom left, a collection of animals, mostly horses, with richly carved all over ornament, amongst which the unexpected grotesque mask on the throat of one horse is, perhaps, the most remarkable.









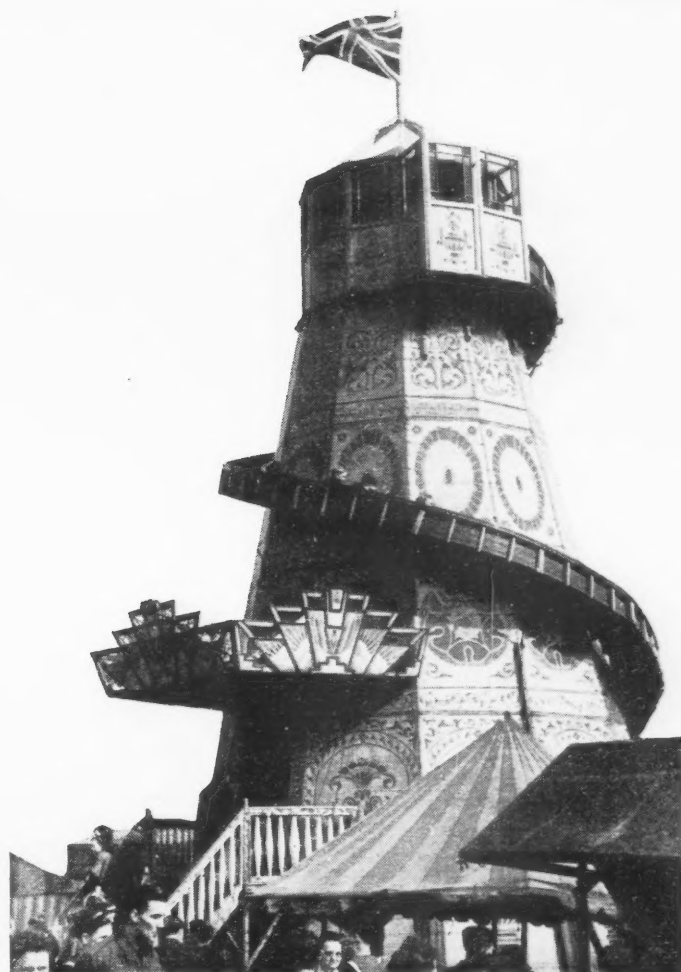
*Rounding boards. Centre picture on left-hand page shows the carved, gilded and mirrored boards of Harvey's Juvenile about 1920, with particularly fine lettering. Here the joints are not emphasised as in two examples above. The decorations show in these examples such varied motives as the Rousseau-like paintings, the horse heads, the shells and fishes, an Adam-Tudor-Italian-Paris Exhibition 1925 mixture (bottom row), the dartboard pattern, the less sophisticated scroll motives on the swing boats of earlier date. Many of these decorations are painted by the showmen themselves, when repainting their stock in the winter quarters. To the right, a recently built "slip" (helter-skelter).*

temporary construction of this kind, assembled from parts light enough to be handled without mechanical aid, fixed by means of hooks and metal wedges only, can withstand eccentric loadings and centrifugal forces which would make the architect shudder, if confronted by similar structural problems.

About the beginning of this century, the demand for novelty produced newer, more impressive, more gorgeous, and more exciting rides—the switchback, the Venetian gondola, and the dragon. More complicated, more bulky, with vehicles in place of horses, the field for decoration opened wider. The galloper kept in step with grander, more fiery and spirited horses, towering rounding boards and formidable centres. And at the same time a newcomer added its attractions to the traditional variety of gaffs. The Bioscope Show, a grandiose front with organ, top-hatted or be-spangled paraders, and clanging brass bells, showing now lost and forgotten French and English experiments in cinematography, added its spectacular elevation to the temporary city. Commencing as a modest "walk-up" show, with a centre stairway, flanked on one side by the organ and on the other by an ornate and immaculate traction engine, and concealing behind its front a canvas booth, the later versions had an overwhelming central organ between side entrances, the whole designed and built by the organ makers, commonly French or Belgian. Of these makers, the names still common amongst showmen are Marengi, Gavioli, Gaudin and Limonaire of France, Devos and Verbeck of Belgium, and Bruda of Germany. After the short but illustrious lifetime of these fronts, for the Cinematograph Acts and the construction of the "Electric Palaces" and "Cinemas De Luxe" around 1910 put an end to the travelling show, the fronts disappeared, but the organs and very often the ornamental figures which decorated them passed into the hands of owners of rides, to be adapted and fitted to their machines. In surviving roundabouts which were so improved, such additions can be identified by the freer Continental form of the decoration, contrasting with the tighter and more compact English patterns. "National Academy of Living Pictures," "Electric Coliseum," "Palace of Light," and "Royal Electric Bioscope" are samples of the resounding titles

attached to these shows by their proud owners. Forgotten by most, at best a childhood memory in a confusion of naphtha flares, the taste of sticky-sweet brandy snap, mingling organ music, tooting engines and clanging brass bells, muddled by the excited sleepiness of an unaccustomed late night, here in these Bioscope shows we had a glittering and demountable Baroque derived at the fancy of the designers from a variety of sources—Italian and French Rococo, German, Dutch and English Early Renaissance, even from contemporary sources such as L'Art Nouveau and Horta—no hang-over from the dull and pompous architecture of the late nineteenth century here, but a lively and virile adaptation of Music Hall Baroque which continues to-day. The showman, being of the people, displayed a surer feeling in his work for a human need than the architectural specialist working in his genteel semi-vacuum, preoccupied with the respectability that the following of a professional career exacts to-day, with a concern with current foibles and, occasionally, an anxiety towards the artistic education of the public.

Besides the favourite ride—the galloper—another, the switchback, a tremendous and almost unbelievable erection, came to the fairground, developed through the facile competence of Savages' and the increasing competition between showmen. Their vast carriages in the form of sealy and proud-headed dragons, Venetian gondolas, brass railed and plush seated, swirled and reared themselves over a switchback track surround by a walkway approached by a monumental, if temporary, flight of marbled and balustraded steps. Inside, a Gavioli or Marengi organ, attended by moving military or *fête-champêtre* figures, roared the music of the day, cut on card with infallible accuracy, embellished with grace-notes and obligatos, dazing the delirious riders whose excited screams, rising and falling with the movement of the cars, rose to a crescendo as the gondolas dipped over the summits of the track. At night, are lamps poured a fluttering pink light over the fantastic scene, and hundreds of incandescent carbon lamps glowed steadily outlining the structure, fed by current generated by the hissing and steaming engine bedded in the midst of this Victorian saturnalia, blackened demons creeping amidst its entrails, whilst other creatures,



less blackened, but still black, swung aerially from plunging car to car, extracting the riders' share of the bargain prominently declared in ornate Tuscan lettering "3d. all classes—free list entirely suspended."

Few of these machines are to be seen to-day, most having been replaced by simpler and faster versions built between the two wars, and it is doubtful if these costly delights were ever profitable to the showman, though the prestige they added to his reputation more than compensated for his heavy costs, heavy as the spectacle of the sweating erectors, toiling hour after hour, almost day after day, proves. But they gave the ambitious designer his greatest opportunity and for the student of fair decoration they provide a field full of perplexities and surprises.

In the 1920's an import from Germany, simpler in erection, faster and thus more thrilling, threatened the supremacy of the switchback and thrust the galloper further into the background. Aided by the power and convenience of the electric motor, fed from a vast and ornamental traction engine bearing swan-like on its bosom a humming generator and squatting aloofly at a distance from the ride, this new machine—the Noah's Ark—though too late in date to possess carved and gilded ornament, had decorative features which continued the tradition of coarse splendour. It carried for the riders varied and obscurely derived animals, cut out of hardwood slabs six inches thick, and later, as the idea was taken up by the English manufacturers, motor-cycles and characters from the Walt Disney mythology. Paint and plated embossed metal helped to

give relief to the flat sides of these solid silhouettes. The centre was usually simple and consisted principally of little more than a pay-box, and music was uninterestingly provided by records and loudspeaker.

Also from Germany, about the same time, the idea of the Chair-o-Plane added to the fairground scene a rival in size and shape to the familiar helter-skelter. The Chair-o-Plane, consisting of a wide-spreading centre from which seats hung by chain, whilst providing small opportunity for elaborate decoration, gives incidentally in motion, particularly after dark when the machine is outlined by small electric lights, Moholy Nagy's virtual volume, an aesthetic form of which the public is unfortunately unaware. Being, like the Noah's Ark, a recent introduction, any decoration the Chair-o-Plane carries is painted and usually without particular interest.

Of the remaining rides, the Dodgem and the Speedway, consisting of an oval track and a number of small motor-cars, have little of interest beyond the fascia around the tilt, sometimes supported by trellis, but more usually by plain wooden posts. They are dreary and lugubrious affairs, conducted in half-darkness under the wide cover, accompanied by a raucous loudspeaker which does not succeed in drowning the crashes and grinding of the cars. Even the owners seem usually ashamed of these unprepossessing objects and beyond stringing up a few dingy pennants, retire into the centre of the machines, from where they contemplate the hilarious patrons with somewhat hang-dog expressions.

Sideshows—"gaffs"—are of two

## A War Office Report

No city in Latium could rival Viterbo for the beauty and importance of its monuments dating from the thirteenth and fourteenth centuries when the city was the temporary seat of the Papacy. It is indeed unfortunate that in proportion to its size Viterbo should have suffered more from the ravages of war than any of the Italian cities to the south of it. The mediaeval nucleus of the city, and especially the Pellegrino quarter, with its tangle of ancient streets and picturesque domestic architecture, escaped any serious hurt; but the great churches which lay round the circuit of the walls have in most cases been heavily damaged. A direct hit by a bomb destroyed the left side of the Porta Fiorentina. The Duomo (San Lorenzo) escaped lightly. Its campanile is untouched. One shell pierced the western façade and a bomb hit the roof, with the result that columns are chipped by fragments, some of the stucco decoration has fallen, and some of the pictures are ripped and torn; but there is nothing that cannot be easily repaired. One of the old palazzi on the south side of the Cathedral square has been partly demolished, its thirteenth century arcaded front fallen in fragments. On the other side, the Papal palace, dating from 1266, has been spared, and its delicate arcaded gallery is intact. San Pellegrino lost its High Altar and the whole of its east end. The ancient church of Sta Maria della Verità, built early in the thirteenth century and now used as the Civic Museum, suffered badly; it was hit by bombs, and the whole of the façade collapsed in a huge pile of rubble and beams, and the covering of the roof was dislodged and fell into the nave. The fine Renaissance doorway in the south transept with a relief by Andrea (?) della Robbia above, was only slightly chipped. The Capella Mazzatosta, on the right of the nave, was seriously damaged; the ceiling decoration by Lorenzo da Viterbo is gone beyond repair and most of the fresco of the Marriage of the Virgin by the same artist has perished. The church of Sant'Angelo has lost its roof; the Chiesa della Morte has minor damages. S. Francesco, a splendid Gothic church, is now a huge heap of rubble with only the ruins of the transept and sanctuary still standing. It was twice bombed, and after the first attack the famous tombs of Pope Clement IV and Adrian V were removed, and these can be restored; but the other tombs are buried and probably shattered. San Sisto, founded in the ninth century and altered in the twelfth, perhaps the most important of all the churches, has its nave destroyed; the east end still stands but in bad state, and the campanile is in danger of collapse. Sant'Andrea is badly damaged, but the best of the Romanesque work survives, i.e. the crypt and the eastern apses. Santa Maria in Gradi is a shambles. One corner of the cloisters of the Trinità is smashed. S. Giovanni in Zoccoli, a strange little church of the eleventh century, has lost its roof and the south arcade of the nave and the central and south apse: the façade and walls remain. Santa Maria in Spata is badly damaged inside though the sculptured west end is intact. Of the palazzi, the Costacuti and the Mezzatosta are badly damaged, as is the Caserma della Rocca, the castle of the Popes, begun in 1457; with the last went the Fontana della Rocca.

It is a melancholy tale of destruction and desecration, but great as is the damage it affects only a percentage of the artistic treasures of Viterbo; a surprising number are intact. The work of repair has already begun under the instructions of the Monuments and Fine Arts officer; he reports that "in general this historic city will still retain the larger part of its main monuments although some of its famous patrimony is gone beyond recovery."

principal types; either stands or stalls offering prizes for various forms of skill and being either circular or polygonal, standing detached at the sides of the rides, or the traditional type with posts and canvas backs and sides, lining the margins of the fairground, all being made of extremely light spars and plywood panels.

Of the latter, the cokernut shy and shooting gallery are the oldest and best known, and continue to-day accompanied by a host of similar "attractions." The fronts of these stands are usually flat and, being repainted nearly every season, often by the owners, have generally uncomplicated and contemporary designs, as a rule floral or pictorial, copied from many sources, frequently from coloured picture postcards.

Little attempt was made to maintain the galloper against the competition of the newer rides. Showmen laid up their sets and invested in new scenics, Noah's Arks and Chair-o-Planes. Manufacturers were busy and the inter-war period produced a large addition to the numbers of fairground rides. The galloper continued to be seen, but only at the country fairs and on inconspicuous sites in the towns.

The elaborate decoration of the horse roundabout was inevitable if it was to be in accord with the magnificent horses. The casing of the centre, the rounding boards and the organ fronts were obvious opportunities and the enthusiasm of the decorators and showmen exploited any surface, however small, for additional ornament. Structural elements such as the swifts, the risers and sometimes even the treads of the platform steps all carried their scroll decoration, and shield-shaped banners depended from the top frame declaring the value of the amusement in emphatic terms. The rounding boards announced their owners and the character of the rides in deliriously Tuscan lettering, margined top and bottom with scroll work and debased classic enrichments—"Royal Premier Racers and Hunters—the Finest and most up-to-date English Exercise and Sport," "Mrs. Wm. Thomas' Stud of Electric Galloping Horses, Dragons and Mermaids," "Searles' Royal Famous Hunters—the Greatest of Modern Riding Machines Noted throughout England for Ease and Comfort." Even the little hand-turned "juvenile" rides made justifiable claims, "Thomas Mapping's Up-to-date Riding Devices of Golden Peacocks and Horses for the Rising Generation," "Silcock's Latest British Riding Machine—the Pride and Joy of the Young People," "Lee's Juvenile Arena De Luxe of Mountain Ponies, Southern Peacocks, and De Luxe Coaches." The horses themselves exulted in forgotten and corrupted names of racehorses—Maxtor, Hardnail, Asterus, Weissdurin, Black Terry, Bendigo, Nicator, Set Fare, or some which are frankly unidentifiable, Recicles, Diblish, and Aigburth.

Much greater opportunities were presented by the scenic railway; the balustrade of the walkway, the spandrels beneath, the towering front above the entrance; all these were covered with elaborate painting,

closely resembling theatrical scenic work. Late scenics describe themselves as Ben Hurs from the chariot form of the cars and from the vast and stirring Roman chariot races depicted in every dramatic detail on their fronts. The columns supporting this front usually carry carved figures, often originally from the old bioscope fronts, in their voluptuous repose scarcely appropriate to the grim struggle depicted above.



Applied decoration played an important part both in the moving roundabout and in the stalls and shows. For the latter there was the strong architectural tradition descending from the fronts of the eighteenth century Musick Houses, through the booths and shows of the great fairs such as Bartholomew's, reaching its zenith in the great menageries and finally in the stupendous bioscope fronts, tailing out now in the modest cock-shies and shooting galleries. In the roundabout, less architectural a subject in the first place and only sufficiently important to deserve decoration since the 'seventies and the arrival of steam, the ornament applied was that in vogue on the fairground at the moment.

Most of this decoration was a development of the meaningless scroll pattern common in the embellishment of many 'utilitarian' objects of the mid- and late-Victorian periods. It is still to be seen to-day, to give a ready example, in gold on the black body of certain sewing machines, and is remembered by many as ornament on telephone instruments still in use not twenty-five years ago. This scroll, combined with isolated ornaments like mirrors, masks, horses' and dragons' heads, shields, cartouches, forms the basis of this boldly carved and tightly knit pattern decoration which covers rounding boards, centres and pay-boxes of the roundabouts built between 1870 and 1920 like a rich gold embroidery.

Paintings in the panels of the top and bottom sections of the centres are either of romantic rural scenery, often with a melancholy Germanic flavour of moonlit Lorelei Rocks and Rhine Castles, possibly fashions imported originally at the time of the Prince Consort; portraits of forgotten and usually unrecognisable European royalty and chivalry, or savage hunting and jungle scenes inspired by the wonder of earlier fairs, the wild beast show, and always taken dramatically at the moment of death.

Brilliant bevelled and cut mirrors set into these surfaces must have sparkled and flashed back the thousand blazing lamps of the roundabout, whilst on the whirling rounding boards similar mirrors winked and glittered in the sunlight. Rounding boards, made in sections with their joints masked by elaborated ornament, carried crestings of eagles and flags, and droppers similarly carved, gilded and mirrored, the horizontal lines of the boards being moulded and clumsily enriched. Almost any ornament may be expected and found on the horses of the galloper. The very best specimens had glass eyes, real

horse-hair tails, jingling stirrups, leather reins and plush saddles, but, whatever their quality—and the inner rings of horses being less prominent, whether carved or merely painted, were often progressively simpler in decoration—their fronts, sides and flanks will be found to bear intricate decoration—grotesque masks, medallions, tasselled cords, eagles, draped flags and even Mickey Mouse. Sometimes their tongues loll exhaustedly, sometimes their teeth are bared fiercely, sometimes their ears are laid back wickedly, but each one bears its name painted daintily on an undulating ribbon on the neck. Most inventive of their carvers was Anderson, of Bristol, whose name can often be found prominently cut into the side of an animal.

Throughout all fair decoration there is a consistency about the lettering. Rounding boards, gaff fronts, stands of all descriptions bear their messages in a curious block serif letter, shadowed, changing halfway down into a floral version ornamented at the junction by a painted leaf or flower, linked to our everyday life by the Edwardian grocer's or haberdasher's gilded and painted glass fascias still to be seen about our streets. A feature of the sideshows are the ornamented and lettered cloths which form the sides and back of the gaff. Blue or red, with white appliqué lettering and borders, decorated with crowns and stars, they are also to be seen in other colours and patterned designs in place of wording. Tilts, awnings and weather canvases are rarely the plain Willesden green of the farm implement, but are in sections of alternating colours or with dyed stripes, scalloped and fringed.



But the carved and gilded decoration being difficult to pack and bulky to accommodate, was doomed by the introduction of the speedy and lightweight Noah's Ark and Chair-o-Plane. The fewer loads a ride made up the more economical the transport, and after 1920 carved and gilded work gave place to flat wooden surfaces, elaborately painted, but still carrying on the characteristic ornament of the carved work, though the influence of the 1925 Paris Exhibition has made itself felt in many directions. A kind of floral floridness, continental in design, a White-City-like aberration, has also shown itself, particularly in the Dodgems and the smaller gaffs.

Of the makers, Savages, the oldest firm, no longer primarily concerned with the showman, were principally responsible for the mechanical development and improvements; Orton, Sons & Spooner, of Burton-on-Trent, originally roundabout decorators and makers of most of the carved work produced in England, but now makers of complete rides; Walker's of Tewkesbury, and Lakin's of Stratford, a newer firm specializing in modern forms of rides, are the best known of the English manufacturers. Of the individual designers of detail and decoration the manufacturers remain unhelpfully reticent.





Viterbo in 1944. The famous city in Latium, during the thirteenth and fourteenth centuries temporary seat of the Papacy, has suffered grievous war damage. Many of its historic buildings and art treasures have, however, survived intact. Above, the Museo Civico, main building, and a detail of the Bishop's Palace on the Piazza San Lorenzo. Below, the Palazzo Francesco Crespi, another view of the Bishop's Palace, the Porta Fiorentina, and a view of the picturesque streets in the medieval quarter of the city. A detailed report on the extent of the damage by the office of the Archæological Adviser to the War Office appears on the facing page. The photographs were also provided by the War Office.



**55** Camouflage netting of several types has been produced with varying degrees of efficiency and resistance to hard wear and exposure. The type illustrated achieves a most efficient cover by means of squares of any desired colour on a strong cord mesh. The squares are waterproofed cloth and the sewn edges on each side form a finish which is very resistant to tearing so that the complete material is extremely strong yet light in weight.



**56, 57** A new type of hold-all quickly made from straight pieces of canvas or hessian. In this case the canvas is natural colour and the edges are bound with scarlet braid. (By courtesy of Vogue.)





# DESIGN REVIEW

for a discussion of new designs, new materials and new processes, and as a reminder of the specific visual qualities of our age which war necessities are bringing out in their purest form, and which a more carefree and fanciful post-war world should not forget.

## Advisory Committee

Misha Black	Nikolaus Pevsner
Noel Carrington	Peter Ray
John Gloag	Herbert Read
Milner Gray	Sadie Speight

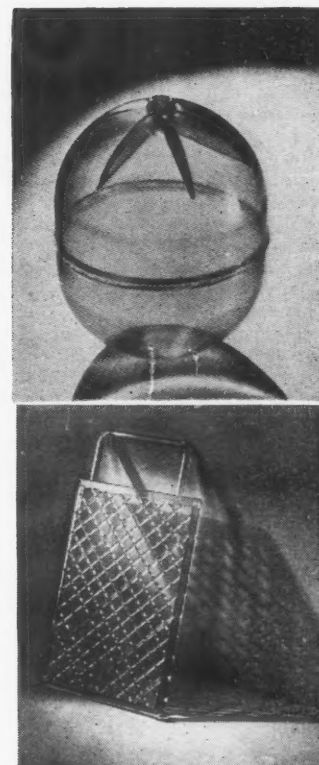
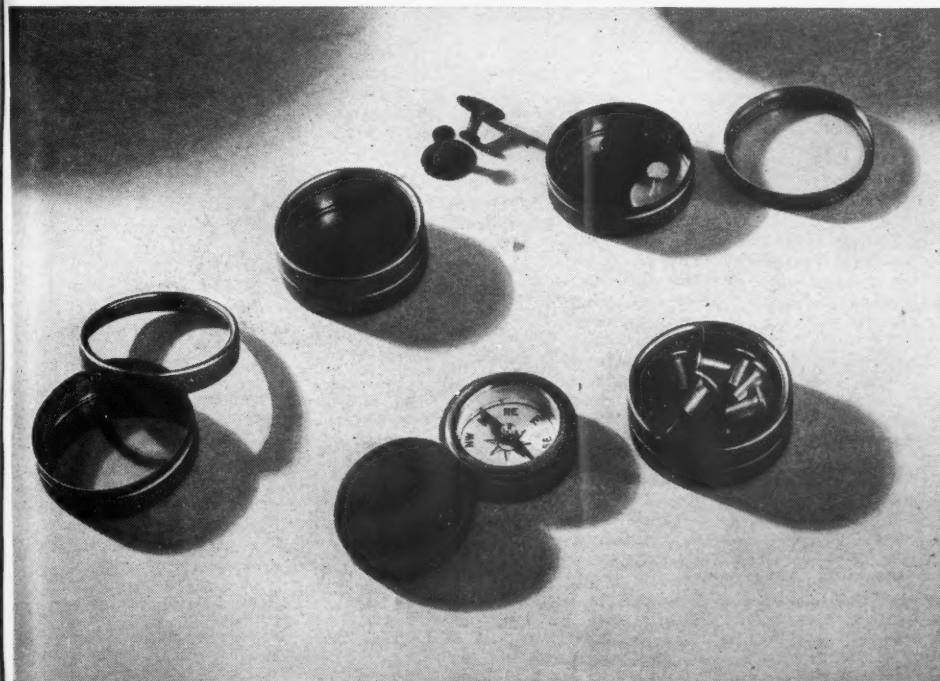
## INGENIOUS SOLUTIONS

Examples of war-time design have been shown in two previous issues of *Design Review*. Its more obvious characteristics are well known. It is design pushed back to essentials and in which there is no room for waste of materials or of man-power in production. It is also design produced on the widest possible scale for the widest use. In many ways the war-time approach to design forms a striking contrast to the *laissez-faire* approach of the pre-war period. It is a contrast not merely of superficial appearances, and it raises many questions for the future development of design. Will this enforced directness have permanent results? Will the changes that have brought scientists, designers, and production experts together as collaborators within industry be maintained? Are the changes to be merely those of an emergency period or are they an advance from which further development will be made?

These are questions which will be answered by the work produced. In the meantime, however, it is not out of place to emphasize again some of the lessons of war-time experience. One is that we are capable of producing well-designed and highly efficient equipment on a tremendous scale. A second is that standardization and mass production have proved humanly acceptable. But the outstanding lesson is that limitation of materials, enforced standardization and enforced directness of design have stimulated ingenuity and invention to a degree never attained before. New problems such as black-out and camouflage produced their own crop of original ideas. Old and well-worn problems have been re-assessed, and designers, coming to grips with main issues, have produced surprisingly new and interesting results. This is an aspect of present-day design which needs to be stressed and further developed in the future.

For instance there are few cases which present such an interesting series of ingenious solutions to a problem as the war-time evolution of the carrier bag. Beginning with the various gas-mask containers and the combined gas-mask tin-hat knapsack, the range has included many simple variations of the woman's handbag, lightweight and collapsible carriers, string bags, etc., and a number of developments of the hold-all type of case. In fact, the woman's handbag has had to become a useful carrier of miscellaneous objects. The reader will recall many more examples; we can give only a few below.

**58** A collection of very small objects picked up in wartime. Each has an interest of its own. Apart from being good-looking, glass tops to metal boxes are most useful. They are manufactured in various sizes. The collar studs are made of plastic in various bright colours, and the compass is in a vermilion plastic container.



**59, 60** America provides the all-plastic toilet tank float manufactured by the Allied Plastics Corporation as a substitute for metal. In favour of the substitute can be claimed its lightness, resistance to denting and non-corrosive qualities. (Architectural Forum.) The "Duzall" is a new version of the vegetable grater which, apart from being manufactured in plastics, is so designed that it can be used either as a grater in the ordinary way for vegetables, cheese, etc., or alternatively as a dicer by pressing the "Duzall" on to the vegetable. One of its edges also forms a sharp cutting knife for slicing fruit, cucumbers, etc.



**61** Wooden soled shoes have been widely used during the war as a means of conserving leather, but the hinged sole used in those produced by Messrs. C. & J. Clark was a brilliant new device for gaining the advantages but at the same time overcoming the limitation of the rigid wooden sole. And less obvious but equally brilliant is the design of the elastic strap round the back of the heel. A strong piece of elastic is stretched and thin leather attached to the elastic which is then released. The result is a very strong and hard-wearing strap which has elastic qualities at the same time.

DESIGN  
REVIEW

next instalment

wallpapers

# BOOKS

## London's Largest Open Space

TIDELESS THAMES IN FUTURE LONDON. By J. H. O. Bunge. Frederick Muller, Ltd. 10s. 6d.

THIS is a book for everyone; concerning Londoners in particular. It is entertainingly written in an easy style—is good humoured even under provocation and has the admirable quality of under-statement. The information it contains is of the utmost importance to the architect town-planner. London with a one-way, gently flowing and clean river at approximately high-tide level, with no evil-smelling mud banks, would be a London transformed. It is fair and just to say that the intentions of the various plans, whether the M.A.R.S., the Royal Academy, the L.R.R.C., or Forshaw-Abercrombie, could not be advantageously implemented without a tideless Thames.

*Tideless Thames in Future London* deals with the vicissitudes of the various proposals to expel the tyranny of the tides, which as the Embankments encroached into the river, caused faster and faster streams, ultimately making it unsafe for pleasure and unprofitable for transport. Whilst it is doubtful whether the barrage should be linked with the main road systems, as the Thames Barrage Association recommends, its claim that neither the flood of '28 nor the fire of '41 would have reached such disastrous proportions had there been a barrage, appears true. The terrible flood was the product of a high spring tide, driven up the funnel-shaped estuary by an easterly gale, which would have been held back by a barrage. During the fire blitz, as the tide receded, the fire floats on the river were unable to supplement the water supply, which failed as the mains had been bombed.

The Thames is the largest "open space" in London, and has, incidentally, the most important qualification an "open space" should possess, i.e. continuity; and could, given the right conditions, be crowded with passenger and pleasure craft. It is the widest highway in the county—600 ft. as an average, as it passes through Central London, yet it is empty. Mr. Bunge explains why. First, it is one-way traffic only, and for a short period at that, previous to high tide, and one-way in the other direction just after the peak. For this short spell of feverish activity there is a longer one of relative emptiness, whilst the various transport systems struggle with the congestion of traffic. Quite apart from the aspect of transport or pleasure, of which more later, there is a discharge of 280,000,000 gallons of only partially treated sewage which the London County Council empties daily into the river at Becton and Erith. Upon a rising tide, this effluent (which at Woolwich Free Ferry is black and nauseous to the eye and nose) flows upstream to Chiswick, or is it Kew? "Even A. P. Herbert has to admit that it takes thirty tides to move a dead cat out of London" (page 25). Its first action upon entering the river, previously heavily laden with earlier discharges, is to absorb all the remaining oxygen from the water; more than that, it produces a minus quantity resulting in a super saturation of nitrogen. Consequently, instead of giving off oxygen and absorbing nitrogen, it reverses the process; it absorbs oxygen from the atmosphere and gives off nitrogen (*vide* Lieut.-Col. Wm. Butler, M.B., page 89).

Perhaps the time may come when it may be feasible to convert the daily 280,000,000 gallons of sewage into precious fertilizers, but at the present moment, by emptying it into the Thames, it partially converts this historic waterway into an open sewer, to such an extent that for every sixteen pailsful of water drawn from it, opposite the County Hall, one pailful is undiluted sewage. This effluent is deposited in the form of silt upon the river-bed, which at low tide is exposed to the sun and air, gratuitously presenting the all-enduring citizen with a nosegay neither pleasant nor conducive to his health.

Mr. Bunge points out that a barrage across the

river at Woolwich would stop all this. Placed upon the London side of the northern and southern outfalls, it would act as a one-way valve. Fresh oxygenated water from Teddington would surely cleanse the river, bringing in due course all the aquatic life necessary to maintain a healthy and beautiful river. Who, to-day, asks Mr. Bunge, realizes that the Thames was once so famous a salmon stream that the 'prentices had to be protected in their Articles from an over-balanced menu of this delectable fish? It was only in Pepys's time that the easy-going citizens used to watch a pet seal, owned by an official of the Tower, fishing for his evening meal.

London Port is the largest collection of docks in the world, but due mainly to the restrictions upon, and the difficulty of, docking resulting from the heavy tides, it is the most expensive one. For example, in Rotterdam, charges for berthing, unloading, etc., are £47 compared with £100 on the Thames. How long can London continue prosperous, especially in the conditions which will prevail after the war, if handicapped by such a disability? One would think that the authorities concerned would welcome the most exhaustive enquiry into any project which claimed to remedy this disparity. The Thames Conservancy are strong supporters, but the Port of London Authority, inheriting the prejudices of the several Dock Companies, which it co-ordinated upon its creation in 1908, is committed apparently to discourage a public enquiry. The Authority has done magnificent work, converting un-correlated wharves and docks equipped with obsolete paraphernalia into a welded and modern docking system; but in this matter of barrage it acts as if it owned the river—lock, stock and barrel—and is so imbued with the notion that its prestige permits neither interference nor advice from any outside source, that it has so far successfully prevented a public court of enquiry to be appointed and to do its work.

Let every town planner fully realize that in the circumstances obtaining, there can be no riverside boulevards, pleasaunces, open spaces—there will be wharves and only wharves. The tragedy is that with the barrage, there could be all the prosperous wharves and warehouses the P.L.A. or any other authority ever dreamed of, with a 24-hour service, yet with all the open spaces we need as well; there would be no more degrading casual labour with all its horrors of exploitation, but regular employment; there would be water buses and taxis running to schedule; a river with lovely banks, every riverside borough with its quota of free access to the river, with promenades, riverside gardens, restaurants and an amazing increase in rowing, sailing, swimming and perhaps even fishing. Above all, this ancient and lost heritage would once again become the rightful property of the citizen for his profit and pleasure and, not least, the oxygen-giving waters would be in perpetuity a great asset to the health of London.

BERTRAM CARTER

## SHORTER NOTICES

ROAD, RAIL AND RIVER IN LONDON. Country Life. 2s. 6d.

*Road, Rail and River in London*, the second report of the Royal Academy Planning Committee, is an elaboration of the main proposal put forward in the 1942 Royal Academy Plan for London—that of a ring road connecting all main-line stations. Rail proposals are limited to suggestions for linking the main-line railways with the existing Underground which from the point of view of Londoners and laymen seems straightforward and sensible enough. A two-year digest has greatly improved the original ring-road scheme. In place of a hog's back we are now offered a speedway discreetly sunk in a grass embanked cutting, which would be pleasanter for drivers and general public alike. The suggestion that centres of roundabouts should be made safely accessible and used as shopping centres is likely to prove most valuable, while at least one of the designs worked out—the model of a roundabout at a junction with the ring road, gives a block plan that is pleasant to look at and should be reasonably pleasant to look out of.

But as a stimulus to the imagination and an

inspiration to fine building the second report is as woefully weak as the first. Since the blitz St. Paul's has been standing on the edge of an open space across which can be seen the magnificent spectacle of the dome towering above the curve of the apse. Again and again one hears said, "I never realized St. Paul's was so beautiful before." And yet the Academy advises that this view should be blotted out, and that the Cathedral should be re-set in a tight little quadrangle permitting only head-on vistas from the sides and front. This is typical. Designs for contemporary buildings are equally four square, substantial and dull.

JOHN CONSTABLE: THE HAY WAIN. By Sir Kenneth Clark. The Gallery Books, No. 5. Percy Lund, Humphries & Co. 4s. 6d.

No. 4 of this series of well illustrated pamphlets was here reviewed some months ago. The new number is dedicated to a painting, once a fierce revolutionary, then for a long time a classic, and now to most admirers of landscape painting, and even of Constable, something of a back number. Sir Kenneth Clark's brilliantly written eight or nine pages of introduction to seventeen illustrations tell the history of the *Hay Wain* in detail; but their real scope is to reinstate the true values of the finished Constable painting as against the easier and (at least yesterday) more topical appeal of the sketches and studies.

BATH. By R. A. L. Smith. B. T. Batsford. 12s. 6d.

The book which the late Tony Smith was asked to write is a companion volume to John Steegmann's *Cambridge* and Christopher Hobhouse's *Oxford*, and it is only right that Bath should have been chosen as the third in this *triumvirate* of English towns which are works of art. Many others have beauty-spots but no other has an aesthetic completeness as satisfying as Cambridge and Oxford and Bath. Tony Smith was a young fellow of Trinity, Cambridge, and had made a name as a promising medievalist before he died last April. His chapter on medieval Bath is, in fact, the most original and most repaying of his book.\* He writes well of the eighteenth and early nineteenth centuries too, though readers of *THE ARCHITECTURAL REVIEW* would have liked a little more of a strictly architectural kind, for instance on Beckford's Lansdown Tower with the cast-iron imitation-Lysicrates top, or on the lovely early Gothic Revival churches and chapels.

BRITAIN AND WORLD AIR TRANSPORT. By B. J. Hurren. John Crowther Ltd. 2s. 6d.

*Britain and World Air Transport* deals briefly with another problem. This is so little understood that town planners mostly shirk the subject, Royal Academicians being no exception. How wise they are! The 1,000-ton freight plane is a technical possibility it seems, and requires aerodromes and seaplane bases to scale. Landing grounds may need to be ten miles in diameter with a surface capable of receiving a 1,000-ton load and of course storage space for many times that amount. Before the war American Airways carried cargoes barely equal to a third of that carried by a single moderate-sized cargo vessel in a year, in 350 medium-sized aircraft. The exact number of aeroplanes produced now in America every month is not given—which is a pity. How things stabilize will depend partly on operating costs and partly on politics, two factors that are equally unpredictable. Mr. Hurren's pamphlet is a stimulating survey of some very exciting possibilities which are not without interest to architects, although the aeroplane has not crashed into planning yet.

UNITED STATES HOUSING IN WAR AND PEACE. Bibliography compiled by Evelyn Steel Little. American Library, 1, Grosvenor Square, London, W.1.

*United States Housing in War and Peace* is a bibliography to go with the Exhibition of American Housing held last summer. It catalogues useful information on this subject available at the American Library in London.

BROADSHEETS 2 & 12. By the Association for Planning and Regional Reconstruction.

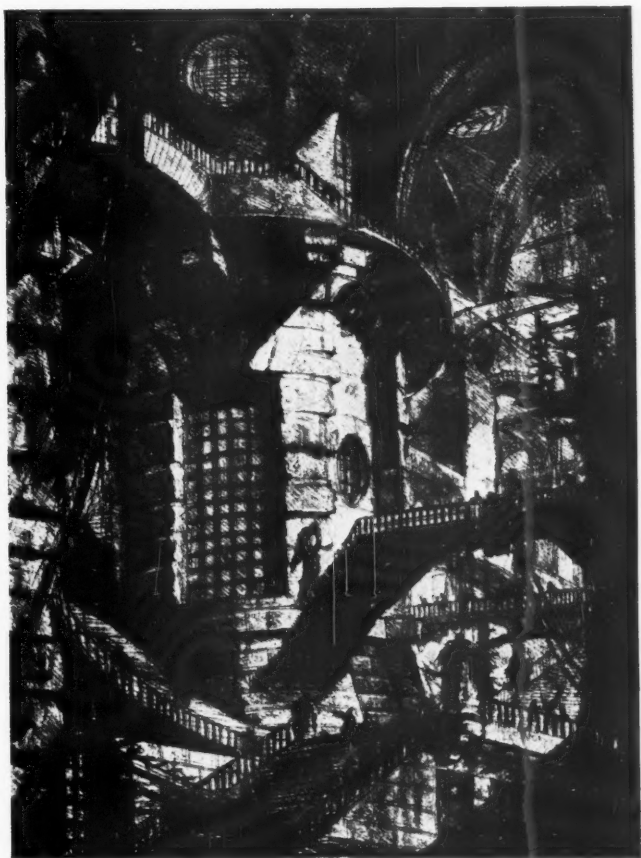
In Broadsheet 2 the A.P.R.R. explains its procedure to the world at large and gives a complete list of broadsheets; a list of reports and reviews can be obtained on request. Broadsheet 12 is another example of common sense applied to planning problems—this time to national by-ways. No. 31 of the Physical Planning section in *The Architects' Journal* gives, however, a better summary of the subject.

\* But should not Adelard of Bath, the great early translator, have had a place in this chapter?



## ANTHOLOGY

### Piranesi's Prisons



In Piranesi's rarer prints,  
Interiors measurelessly strange,  
Where distrustful thought may range  
Misgiving still—what mean the hints?  
Stairs upon stairs which dim ascend  
In series from plunged bastilles drear—  
Pit under pit; long tier on tier  
Of shadowed galleries which impend  
Over cloisters, cloisters without end;  
The height, the depth—the far, the near;  
Ring bolts to pillars in vaulted lanes,  
And dragging Rhadamanthine chains;  
These less of wizard influence lend  
Than some allusive chambers closed.

Those wards of hush are not disposed  
In gibe of goblin fantasy—  
Grimace—unclean diablerie:  
Thy wings, Imagination, span  
Ideal truth in fable's seat:  
The thing implied is one with man,  
His penetralia of retreat—  
The heart, with labyrinths replete:  
Paul's "mystery of iniquity" . . .

Dwell on those etchings in the night,  
Those touches bitten in the steel  
By aquafortis, till ye feel  
The Pauline text in gray of light . . .

HERMAN MELVILLE (*Clarel*, 1876)

## MARGINALIA

### Honours to Planners

Amongst the newly created Knights Bachelor on the New Year's Honours List there were two planners, Professor Patrick Abercrombie and Herbert Alker Tripp. On Sir Patrick's vast plans for the London region more will be said in these columns later, when the final publication is out; of his Plymouth plans a review appears below.

Sir Herbert Alker Tripp has achieved fame as the most architecturally minded of English traffic experts. His conception of precincts has influenced architects all over the country.

Less than a fortnight before the Honours List came out, H.M. the King had, on the recommendation of the R.I.B.A., awarded the Royal Gold Medal for 1945 to Victor Vesnin, President of the Russian Academy of Architecture, chief architect to the Dnieper Dam and Power Station, and designer of many of the most prominent Soviet buildings (Labour Palace, Arcos Building, Second House of the People's Commissariat, Moscow, etc.).

### Congratulations to London University

The Warburg Institute has had to lead a somewhat precarious life during the eleven years between its transfer from Hamburg to London and now. In spite of the outstanding work which it has carried out, it even seemed for a while doubtful whether it would not have to migrate on to the United States. Now it has become part of the University of London, and is secured for this country. Its exemplary exhibitions, especially the one on British Art and the Mediterranean, will still be remembered. Its magnificent photographic records of works of architecture and sculpture are known to readers of *THE ARCHITECTURAL REVIEW*. Less familiar to an outside public are the joint *Warburg and Courtauld Journal*, one of the best periodicals on the history of art and architecture published anywhere in the world, and the stimulus which the specific attitude of Warburg scholarship has given to the younger generation of English critics of art and architecture.

### The Barlow Council

The Pick Council of memorable energy and yet alas so limited effect, is now superseded by a new Council of Industrial Design, appointed by the President of the Board of Trade. Sir Thomas Barlow (of Barlow and Jones and of Helios, the makers of excellent modern furnishing textiles) is its chairman. The other members are: Mrs. Margaret Allen, Sir A. Steven Bilsland, Sir Kenneth Clark, Dr. R. S. Edwards, Mr. Leslie Gamage, Mr. Ernest W. Goodale, Mr. William Haigh, Mrs. Mary Harris, Mr. Francis Meynell, Mr. S. Gordon Russell, Mr. Charles B. L. Tennyson, Mr. A. G. Tomkins, Mr. J. H. Tresfon, Mr. Allan Walton, Mr. Josiah Wedgwood, and Mr. Philip G. R. Whalley.

There will also be a Scottish committee of the Council, with Sir

Steven Bilsland as chairman. Other members of this committee will be: Mr. Stanley Cursiter, Mr. E. L. Denny, Mr. J. Douglas Hood, Mr. William Hunter, Mr. John McMurtrie Kay, Lady Macgregor of Macgregor, Mr. R. A. Maclean, Mr. Neil Macneil, Mr. William Rennie, Mr. R. Lyon Scott, and Mr. Allan Walton.

The Council is to encourage better design in all industries and also to stimulate sales of British goods everywhere. If the latter means the organizing of exhibitions in a modern spirit—well and good. If it means the expectation of immediately rising sales abroad by changes of design, it has somewhat dangerous implications. The Council will also help in the establishment of design centres by individual industries, and in an overhaul of art school syllabuses with a view to the requirements of design education.

### This Month's Anthology

The verses from *Clarel II*, 35, are reprinted from Geoffrey Grigson's new book *Visionary Poems and Passages, or The Poet's Eye* (Frederick Muller, 1944). The book has 118 pages—poetry and prose—from many works of many seers. They range from Quarles to Auden and Kenneth Jackson, with much Crabbe, much Clare, much Barnes, and such uncommon names as Mary Anne Schimmelpenninck, and Lord de Tabley: a personal and very rewarding selection.

### A Plan for Plymouth

Plymouth is the second city of England to present to the public a complete post-war plan.\* The method of publication is very like the L.C.C. Report, but one cannot help being conscious, when one reads it, that this is Plymouth making a plan for Plymouth, whereas the other was a composite authority making a plan for a fraction of an area. The London County Council, having no authority to represent it as such, was incapable of asserting its true position in relation to the home counties. Plymouth, strong in its administrative unity, has stretched a point and planned for an area commensurate with "the immediate sphere of influence of the City of Plymouth."

What is meant by "the immediate sphere of influence of the City of Plymouth" is not altogether clear. What is clear, however, is that as finally settled it is large enough to provide for all the recreational needs of citizens and their holiday visitors. The most energetic hikers and cyclists could spend days inside the planning boundary, exploring country pathways and rural rides, without feeling cramped. And if the advice of the authorities is taken the interests of the inhabitants will be further safeguarded by the preservation of fine stretches of coast line and the creation of a National Park, abutting on to the Western boundary of the Plymouth region.

A survey of the Plymouth region

\* *Plan for Plymouth*. By J. Paton Watson and Patrick Abercrombie. Underhill (Plymouth) Ltd.

based on the National Scheme of Land Classification, has been prepared by Sir Dudley Stamp, and is included as an appendix to the report. The majority of the land is scheduled as permanent rural zone and proposals for the siting of satellites show regard for the need to preserve the best agricultural land. Inside the city open space is to be provided at the rate of seven acres per 1,000 population with an additional  $2\frac{1}{2}$  acres per 1,000 per school playing fields (compare L.C.C. 4 acres per 1,000 for all purposes).

The general conceptions on which the Plymouth plan is based are already familiar. There is the residential unit, the neighbourhood unit (6-10,000), the Community (50,000) and the city centre. The only innovation here is the suggestion to provide community centres at four or five points within the City, chosen not because they are the focal points of communities, as in London, but as being conveniently accessible from a group of neighbourhoods. In Plymouth, in other words, the neighbourhood and the civic centre are of primary importance. The community is a kind of aside which might have been dispensed with altogether if the topography had allowed a slightly more compact development. The report quotes

from a Mass Observation survey: "On the social side nearly everybody showed some interest in their neighbours, but interest in the community as a whole was almost entirely lacking among housewives." This situation is unlikely to be remedied until some form of community organization becomes general, which caters for families as such. (See the Peckham Experiment). It is disappointing how town planners continue their industrious juggling with units of population and areas of land while persistently ignoring this indisputable fact. Health centres are mentioned incidentally in the report, but it is obvious from the context that sickness centres are meant.

Thanks to a favourable situation on a promontory between estuaries, and to the fortunate preservation of a fine central park, the separation of neighbourhood from neighbourhood, and of city from satellite, is more convincing in this than in most plans. Thanks to the absorption of two rival authorities in 1914, the preponderant importance of the docks, and a rather fortunate incidence of the blitz, it has been possible to concentrate on the development of a single city centre worthy in scale to Plymouth's position as a regional capital, and confine industrial development, with

slight exceptions, to two substantial areas by the water front. Features of the road plan are an unusually fine parkway, and an inner ring road round the city centre, which is a much more sensible arrangement than the more obvious one of bringing central traffic to a single point, e.g., the arterial cross roads in the London plan.

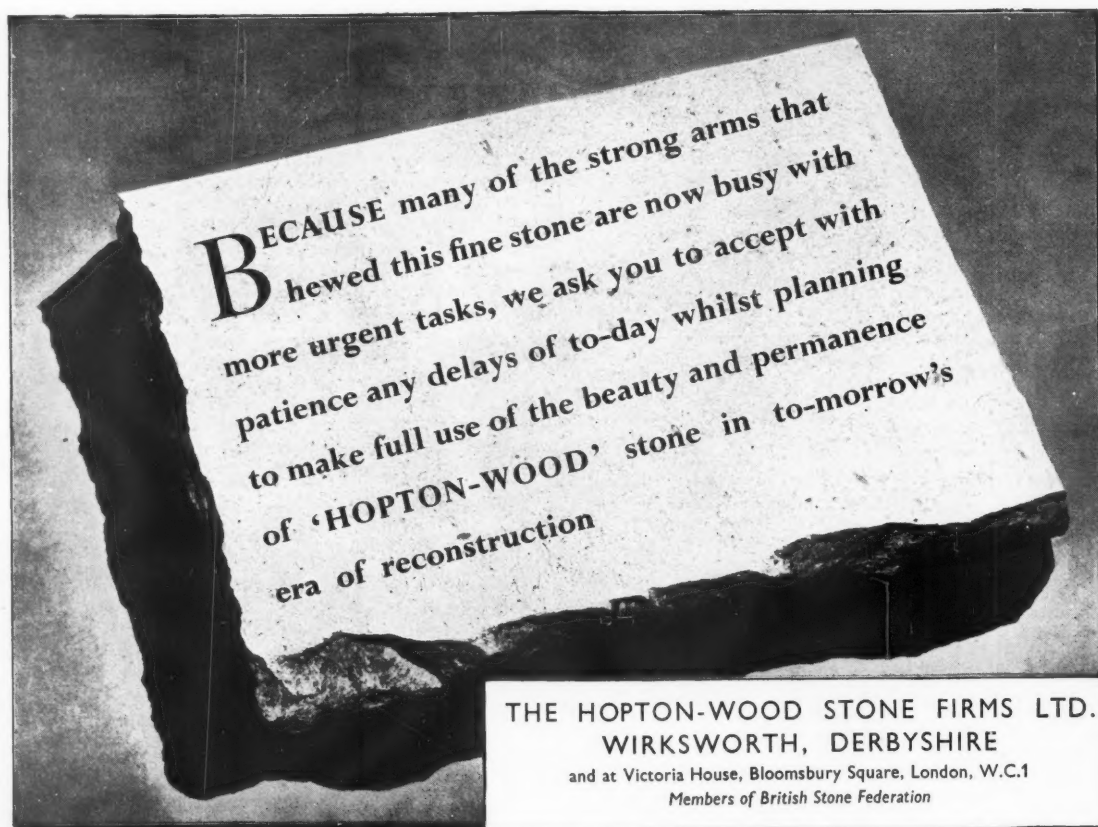
Three density zones are proposed for Plymouth City, 100 persons per acre, 50 persons per acre, and 25 persons per acre (compare London, 200, 136 and 100). These figures represent the upper, but not the lower limit. The 32 acres available for redevelopment in St. Andrews, one of the central wards, are scheduled for a density of 30 persons per acre, the density in the remainder of the area, when no change is proposed, being 100. The number of people for whom it is suggested that accommodation should be found outside the city boundary is 40,260. The final result will be 171,540 people occupying a gross area of 9,515 acres giving an overall density of approximately 16 people to the acre within the city boundary. The density is very low. Is this mass expulsion really necessary? Plymouth is not a repulsive industrial town, but a holiday resort attracting visitors from all over the country.

Under the new plan it will be unusually well provided with facilities for a full social life; the sea and the coast are within easy reach of every part of it. Can the moorland villages which are to be expanded into satellites really offer so much better living conditions than the parent town? Will the new army of commuters be content to turn their backs on all these attractions when they travel home at six o'clock? Will their wives, where freedom of movement is inevitably circumscribed by the nature of their occupations, welcome separation from the social centre, the promenade and the department stores by a rural zone several miles wide, which may well prove an impossible barrier for them in practice? Resettlement is a means not an end. In this case planners seem rather to have over-shot the mark, determined to show what can be done in a situation when there is very little need to do it.

The number of new houses needed within the Plymouth region, in connection with the reconstruction of Plymouth, is given as 32,705, of which 22,309 are needed within the next ten years. It is a staggering total affecting perhaps half the city's population, and strikes one as honest.

The authors of the Plymouth

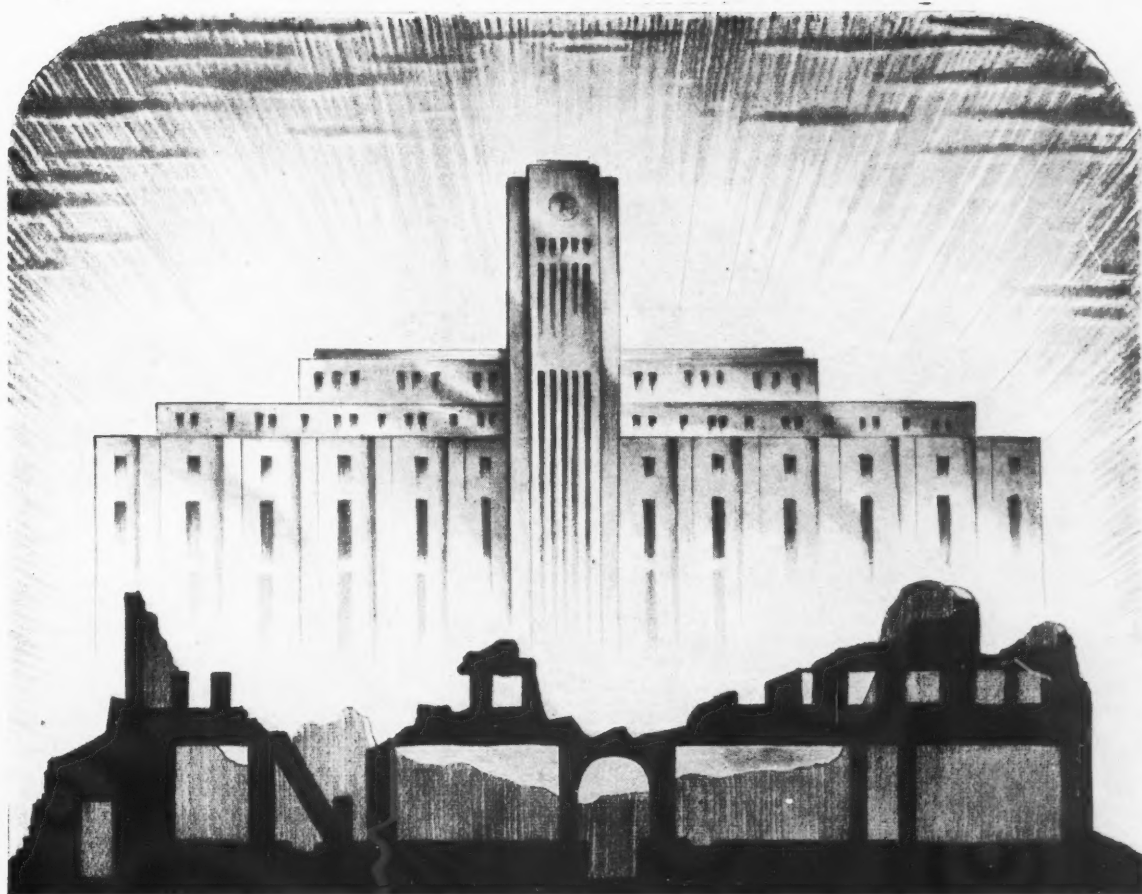
[continued on page lvi]



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**RESEARCH AND EXPERIENCE** in all the above subjects are available within the framework of this organisation, and it is not too early to plan at once, having regard to the restricted means which will be available.

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continued from page liv]

plan are to be congratulated on their clear presentation of the facts on which the proposals are based. If one wants to know the area available for redevelopment in St. Budeaux Ward, or the present residential acreage, or the number of people to be displaced as the result of bad housing conditions, one has only to look up table 7. Why, one wonders, if this can be so clear, was the same material so confusingly presented in the L.C.C. report? Plymouth is smaller, of course, but is that the only reason? Or is it that the Plymouth City Council, being master in its own house, has not the same reason for hiding from its left hand what its right hand is doing? On one point Plymouth statistics are no improvement on London's. Housing requirements are still calculated on the basis of the 1931 census in spite of all that has since been said to prove the unsuitability of these figures for the purpose. While in Plymouth's case the roominess of the plan makes this point of less immediate importance, it is to be hoped that a more accurate estimate of requirements will be made before the rehousing programme is actually launched. In passing it is perhaps just worth mentioning, with a sigh of

unbounded relief, that in connection with the Plymouth plan, the House v. Flat controversy does not arise. Broadly speaking, houses are possible and flats permitted. In short the plan, as far as the main lines of it go, takes full advantage of an unusually favourable situation.

Having said as much it must be confessed that the scheme for the design of the new city centre is deplorable. Here is a great opportunity. The area concerned is nearly a mile square, and the site is one such as few towns in England can offer, rising dramatically towards the Station in the North and Southwards towards the famous Plymouth Hoe, while on either side it slopes gently away: in a caption to the sectional drawing illustrating this "difficult configuration," it is bleakly described as a "basin," a description which does justice neither to the natural beauty of the landscape nor to its apparent irregularity; and a totally unsympathetic layout, chiefly remarkable for its symmetry, flatness and rigidity, has been elaborated with depressing finality. Block planning reconstructs the heavy monotony of Oxford Street, instead of suggesting the charm and gaiety which modern architecture might impart to a provincial capital and holiday resort: individual buildings

are mostly dull and sometimes funny (e.g., plate facing page 75). But not even the best individual buildings could save this stereotyped *Beaux-arts* type of monumental layout.

The report stresses the importance of preparing detailed redevelopment plans controlling block planning and silhouette grouping in connection with schemes whose character makes architectural unity a consideration of primary importance. Perspectives of Plymouth city centre give a gloomy foretaste of what is likely to happen in more places than Plymouth, if we allow this sensible procedure to be adopted—leaving out the architect. In this respect Plymouth's plan prepared by the city engineer and surveyor falls below the standard set by the L.C.C. plan prepared by the County architect, Sir Patrick Abercrombie being in both cases consultant.

### New Head of the A.A. School

R. Gordon Brown, the new principal of the A.A. school, comes from South Africa. He is thirty-two years old and has worked under Dudok, and then as an assistant to Sir W. Tapper and to Richardson and Gill. He is, at present, a Major in the Parachute Regiment.

### British Cast Iron

The British Cast Iron Research Association has held an exhibition recently of modern building applications of cast iron. Cast iron seems to be coming into its own again after an eclipse due to the erroneous idea that the material's glorious past had made it less suitable for contemporary uses. Now, thanks to an intelligent handling of research (Consultant: D. L. Bridgwater) and propaganda, cast iron appears once more, and as young as ever. It is a pity the exhibition was only shown at Alvechurch and not somewhere in London.

### COMPETITION FOR DESIGNS FOR CONCRETE FENCES

The Cement and Concrete Association offers premiums for designs for Open Type Concrete Fences. The Royal Society of Arts desiring to promote good design in industry have undertaken to conduct the competition.

The Assessors are:—

Mr. Oswald P. Milne, F.R.I.B.A., Royal Society of Arts.

Mr. Charles Holden, F.R.I.B.A., R.D.I., Faculty of Royal Designers for Industry.

Mr. A. G. Bray, F.R.I.B.A., Cement and Concrete Association.

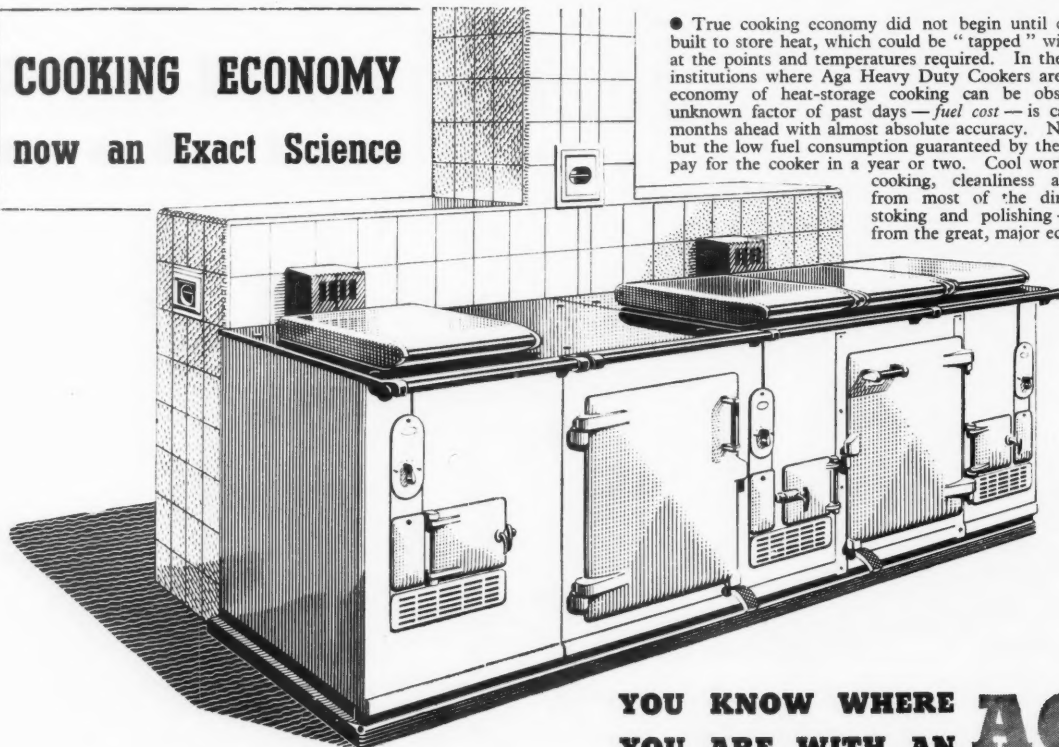
Designs are invited for two types of fences.

Premiums to the value of £170 are offered, viz.:

	For designs
First £50	of each type
Second £25	
Third £10	

Last date for submitting designs—30th April, 1945. Conditions of the competition may be obtained from the Acting Secretary, Royal Society of Arts, 6-8, John Adam Street, Adelphi, London, W.C.2. An exhibition will be held of the winning and commended designs.

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